

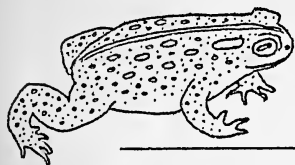


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NATTERJACK

The quarterly bulletin of the Norfolk & Norwich Naturalists' Society

No. 1

May, 1983

Introduction

When we thought of recasting the Society newsletter, it seemed a good idea to find a name for it: something sort of Norfolk and sort of Naturalist was needed, although the early ideas would not do. We fancy that the Editor of the Transactions has his eye on our Swallowtail as a possible popular title for that publication, and the Broads Authority seem likely to adopt Aeshna, in logo if not in name. Woolly Mulllein had a cosy, if rather dull, sound (although not far from Lili Marlene!), and Bog Orchid was rather worse, although not quite as soporific as Narrow-mouthed Whorl Snail. We toyed for a while with Bishybarnaby, but in the end we adopted Peter Lambley's suggested Natterjack since it was not only sort of Norfolk and sort of Naturalist but was also sort of mardling, which really sums up what our news letter is all about.

G.D.W.

New Structures

Those of you that toiled through the proposed revision of the Society Laws sent out in February, and particularly those who attended the A.G.M. in March, will be aware that a reshaping of the management structures of the Society has taken place. Leaving aside the binary fission of the President into an administrative Chairman and a significant-contributor-to-natural-history President, the most important change is the establishment of four standing committees to look after the four most significant areas of activity of the Society. These committees are as follows:

Membership Committee Chairman: Rex Hancy; Secretary: Jeanette Wakefield; Council Members: Ernest Daniels, John Goldsmith, Mike Wolner; Co-opted: Reg Evans, Lil Evans. The job of the Membership Committee will be....'To maintain an up-to-date register of members' names and addresses. To organise the despatch of Society material to members. To represent and guard the interests of members. To devise and execute policies for both maintaining and expanding the membership of the Society, especially with regard to recruiting junior members. To produce a newsletter for members.'

In passing we should mention that Ernest Daniels is undertaking the task of collecting material for 'Natterjack' so that any accounts of meetings, notes, observations, etc. should be sent to him at 41, Brian Avenue, Norwich, before the appropriate deadline - January 15th, April 15th, July 15th, October 15th.

Programme Committee Chairman: Alec Bull; Secretary: Joyce Robinson; Council Members: Colin Dack, Bob Robinson, Roy Smith; Co-opted: Alice De Caux, Charles Neal. The job of the Programme Committee will be....'To receive suggestions for lectures, meetings and excursions. To plan a programme of meetings for Society members. To make the necessary arrangements with lecturers, leaders, landowners,

guides, etc., and to book rooms, transport as necessary, and make such other arrangements for the smooth running of meetings. To draw up and have printed a Programme Card for all members. To arrange for appropriate publicity for future meetings, and to send brief reports of meetings to local newspapers. To liaise with other Societies to hold joint meetings in various parts of the county of Norfolk.'

Publications Committee Chairman: Reg Jones; Secretary: Peter Lambley; Council Members: Rex Hancy, Michael Seago. The job of the Publications Committee will be....'To undertake responsibility for all Society publications (other than the newsletter, programmes, notices, forms and other administrative material). To invite contributions, receive copy, and decide upon priorities. To consider layout, design, size, style and timing of publications. To arrange estimates, printing, proof-reading, storage, distribution (other than to members) and sale of publications.'

Research Committee Chairman: Tony Davy; Secretary: Anne Brewster; Council Members: Rosemary Carpenter, Judy Geeson, Tony Goodwin. The job of the Research Committee will be....'To plan the Society's research commitment. To guide and co-ordinate members involved in investigations or surveys on behalf of the Society. To nominate the organisers of Specialist Groups, and to advise the Council about such groups. To foster individual or joint investigations by Society members, to keep records of work in progress and to encourage the publication of results.'

The Society has offered to undertake a Survey of the Trust's new acquisition, Thompson Common, and this will provide the new committee with its first organising task. Members who are prepared to carry out some biological recording, even if restricted to particular groups such as birds or fungi or other, should let the committee secretary, Anne Brewster, know.

G.D.W.

Excursion to Wells-next-sea, March 27th, 1983

A group of between 20 and 30 members were met in the car park at the end of Beach Road by Mr. Paul Banham who, as leader, took us on a very interesting and informative trek through the pinewoods.

Approaching the pinewoods we noticed shrubby growth where the bark had been nibbled by fieldmice some three to four feet above the ground. We were enabled to recognise the different types of pine - the Monterey, the Scots and the Corsican. Near the entrance to the woods were woodpecker holes in the dead trees. The Corsican pines revealed fantastic shapes like giant candelabra. The woods were quiet and sheltered, and so the light drizzle that had begun as we approached did not affect us.

There were signs of the presence of squirrels signified by the way the pine cones had been nibbled, and we discussed the differences between these and cones as left by crossbills. A small group of goldcrests were seen in the trees at the edge of a clearing, and at intervals the robin popped up above our heads with his song. Whilst in the woods we were shown a simple and accurate way to estimate the height of a tree.

Leaving the woods, we moved among the birch scrub to a patch of open water - a favourite spot for birdwatchers - where we were interested to find strings of toadspawn. We were able to see for ourselves the effect of salt water on the land, for after the flooding of 1977 the silver birches died and only their stark skeletons remained. The orchids, too, disappeared after this (marsh, early purple) but fortunately are beginning to return.

By this time the rain was a steady accompaniment to our walk, so we made our way back for a picnic lunch. After lunch a small interested group met Mr. Banham at the Field Study Centre where he showed us how the microcomputer could be used in Environmental Studies. Despite the rain it was a very successful day.

Joyce Robinson

Photographic Group Report

The well-attended inaugural meeting of the Photographic Group held at Keswick College on Thursday, 16th December, 1982, has been followed by regular monthly, similarly well attended, indoor meetings which have been photographically instructive, and naturewise both educational and interesting.

Following a pattern which has proved very popular with members, the evening commences with a short, instructive lecture on basic photographic techniques, ably put over by Rex Hancy using self-made visual aids - duration 15 to 20 minutes. An illustrated photographic lecture follows by one of our specialists - normally 30 to 40 minutes - and over the past few months we have had 'Close-Up Equipment' by Geoff Watts, 'Macro & Micro' by Rex Hancy, 'Birds' by Reg Jones, and 'Insect Photography' by Ken Durrant. The final session of the evening is set aside for member participation - the showing of members' slides relating to some aspect of nature. This invariably brings forth discussion, question and answer relative to both nature and photography, flowing freely amongst the group.

A series of outdoor meetings has been arranged for the summer months. These are primarily photographic outings, separate and apart from the outings shown on the main society programme.

If photography, in colour or monochrome, does happen to be an absorbing hobby of yours, why not join our group? Should you have some acquaintance photographically minded who might be interested, kindly note that membership of the main Society is a prerequisite for anyone wishing to join the group.

The next meeting of the Group will be on Friday, May 20th, in one of the science laboratories at Keswick Hall as usual. John Fenton will be the main speaker, dealing with 'Photography in Water'. Rex Hancy will give his usual beginner's item, and the members' subject will be 'My best butterfly slide'.

Bob Robinson

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Mailing Dates

Since we now have a number of committees beavering away at their appointed tasks, not to mention various involved individuals, the Council thought it might help to let everyone know that - barring emergencies - the Society will aim at four mailings to members during the year, roughly as follows:

- Early February - notice of A.G.M., nominations, Natterjack
- Early May - Transactions, Programme Card, Natterjack
- Early August - Bird and Mammal Report, Natterjack
- Early November - Natterjack

Organisers of specialist groups, secretaries of committees, contributors to Natterjack, etc. might like to keep the deadlines in mind when planning to get in touch with members. It could save postage.

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Membership

With a membership in excess of 500 persons/families, we are a Society of some substance, although the sight of audience overspill sitting on the stairs in the Library Lecture Theatre is less frequent than several years ago. This slow growth in the face of an unprecedented public interest in natural history confronted the Council with the choice between settling back into our comfortable and venerable ways as we move into our 115th year, or of seeking

an expansion of membership, even if that precipitated problems of another kind. It was decided that we would best serve the aims of the Society by extending our membership, and in this endeavour the new Membership Committee will have some responsibility, but we also need all our individual members to propagate the word. Subscriptions are still very reasonable at £4.00 p.a. (although the Treasurer keeps making threatening noises) and for those under 18, the new Junior Membership at £2.00 for all the privileges of membership (including publications) must be a bargain. Applications for membership to Membership Secretary, Miss J. Wakefield, Post Office Lane, Saxthorpe, NR11 7BL.

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Norfolk Bat Group

Everybody must know by now that European bats in general are in decline. Bats occurring in this county in approximately descending numerical order are Pipistrelle, Brown Long-eared, Natterer's, Daubenton's, Noctule, Brandt's, Whiskered, Barbastelle and Serotine, while Leisler's may yet prove to occur.

With the passing of the Wildlife and Countryside Act, 1981, which came into effect on Sep. 28th, 1982, all bats and roosts became protected, and a licence is now required to handle bats. Every year a steady stream of enquiries (and complaints!) arrives on the desks of N.C.C. officials, District Council Health Officers, etc. In 1982 over 50 enquiries concerning bats arrived at the Natural History Dept. of the Castle Museum and were dealt with by letter, leaflet and 'phone. Ideally all colonies should be checked out, householder's fears allayed, and attempts made to lessen any 'nuisance' that may be caused.

Bat-related activities already being undertaken by a small group of people in the county include:

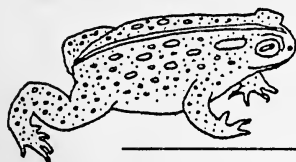
- (1) Regular summer roost counting for ITE/NCC national survey to monitor the bat population;
- (2) Public relations - publicising the W. & C. Act and righting the misconceptions of the media and the public about bats;
- (3) Continuing the long-standing county survey of bats - their habits and habitats;
- (4) Monitoring winter hibernation sites;
- (5) Bats in churches - which ones haven't got any? ;
- (6) Roost protection schemes;
- (7) Bat box project.

In order to help channel some of these interests, it was felt by a number of people that the formation of a Norfolk Bat Group was needed. Other bat groups are already in existence in Suffolk, Cambs, Northants, Herts, and about half a dozen other English counties. Accordingly a public meeting was called for interested parties on the afternoon of Saturday, April 16th, which brought in about a dozen people from the warm spring sunshine into the half-light of the Museum Lecture Room. In this bat-like environment Henry Arnold and Tony Mitchell-Jones (ITE/NCC) showed slides of bats and spoke about their problems for four-and-a-half hours (!). The meeting decided to form a Norfolk Bat Group, and to take up the offer of the Norfolk and Norwich Naturalists' Society Council of becoming a Specialist Group (similar to the Photographic Group). The idea was to be that of an active field group, obviously within the limits that the subject matter allows.

There are about twenty members on my card index so far, so if you feel that you have time to spare, especially to visit worried householders, then please let me know. The next meeting of the group is on Wednesday, May 11th, but because numbers will be limited to six (there isn't much room in the average roof space!) those who would like to come should get in touch with me.....

John Goldsmith, Natural History Dept., Castle Museum.
(Norwich 611277)

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THE NORFOLK NATTERJACK

The quarterly bulletin of the Norfolk & Norwich Naturalists' Society

No.2

August, 1983

Belonging to the Naturalists

If you rather carelessly explain that you "belong to the Naturalists", you may find that the comment turns out to be more confusing than helpful, since 'naturalists' tend to gather in a variety of clusters. In Norfolk the comment is likely to mean that you are a member of the Naturalists' Society or of the Naturalists Trust -- a distinction which is lost on the majority of the public. There was a time when the distinction was clearer: when the Trust was almost exclusively a device for raising money to buy land, and whose members met once a year if at all; and when the Society was almost exclusively a club existing to arrange lectures and excursions for the interest and amusement of its members. In the banter of the time, some Trust members saw themselves as the doers, regarding Society members as talkers who, binoculars round necks, self-indulgently picnicked around the nice places in the county: some Society members, on the other hand, saw themselves as students of nature - studying, listening, working, publishing - and regarded Trust members as rather distant and withdrawn professional landowners, absorbed with making money and buying property although not particularly interested in or knowledgeable about wildlife. Good-natured insults aside, the stereotypes are largely false, not least because they are very often the same people. The Trust and the Society have a large number of their members in common.

The Trust lists a number of objects in its constitution, but the central - and most characteristic - of its activities is ... 'To establish, form, own and maintain sanctuaries or reserves for the preservation of birds or other animals, and...for wild plants'. Other bodies also buy land to be held and managed for the conservation of nature. The National Trust not only takes over large houses often incidentally with woodlands (e.g. Felbrigg) or wetlands (e.g. Horsey) or other natural resources, but also nature reserves as such, e.g. Scolt Head, Wicken Fen. The Royal Society for the Protection of Birds, the Woodland Trust, The Wildfowl Trust, and so on all own and manage reserves. Here, then, is one of the main thrusts of the nature conservation movement, and anyone who is concerned about conservation ought to support one or other of the reserve-buying and reserve-managing agencies.

Important though these protected sites are, when you plot them on a map they account for only a tiny fraction of the county land surface. There may be choice things living and doing in these natural museums, but the mainstream of wildlife jostles, seethes and teems overwhelmingly outside them. Opportunities for the study of wildlife lie all around, and with them come responsibilities since there is a conservation task here as well. It depends upon people with a lively interest in living things, and a knowledge and an awareness that enables them to discern and to act. There are very few professionals involved in conservation at large, and the coverage is almost wholly provided by the amateur naturalist: that is, by people like you. So, although as a Society we do not own very much (apart

from some interesting and valuable books at the Museum) and although as a rule we do not collect money for buying land (except that when Scolt Head Island was bought for the National Trust in 1923 the funds were largely raised by this Society, and indeed Dr. Sidney Long was Secretary of this Society when in 1926 he arranged the purchase of Cley Marshes and so started the Trust), we do like to think that our doing comes through our knowing. Nobody knows it all, of course, but it is not difficult to settle upon a small group of plants or animals or phenomena and make them your own. There will be someone in our membership who can help you and guide you, and there is a need for people with a firm grasp of the various areas of natural history, particularly in relation to the surveys that we are called upon to undertake. The threat to wildlife is growing and the need for conservation is more acute: as members of the Society, we need to be not only interested and sympathetic but also knowledgeable, if only of our own small sector.

G. D. W.

SOME NORFOLK OAK GALLS

Several interesting records have accumulated since I last wrote about the gall wasps (Manning, 1956) and, in this note, I mention some relating to gall-making species associated with oak. These small insects exhibit the phenomenon of the alternation of generations, one consisting of normal sexual forms (abbreviated as s.g.) and the other entirely of agamic females reproducing parthenogenetically (a.g.).

Galls of Andricus lignicola (Hartig) a.g. were found on Pedunculate Oak (Quercus robur L.) at Holt Country Park, E. Norfolk, on 7 June 1983. This appears to be the first Norfolk record for the insect, which was shown to be a British species by Quinlan (1974) who reported its occurrence in 1973 in Hampshire, Sussex, Surrey and Essex. According to Askew (1982), who found galls in Berkshire in 1979, "Almost certainly A. lignicola is a quite recent introduction to Britain". The typical gall of A. lignicola a.g. is distinct from the spherical, smooth-surfaced, common oak marble gall of A. kollari (Hartig) a.g., being irregularly spherical, rough-surfaced and with the epidermis bursting through in places. The insects themselves have a strong morphological likeness and both species have a sexual generation on Turkey Oak (Quercus cerris L.).

A bud-gall of A. quercusramuli (L.) a.g. was discovered on Pedunculate Oak at Hempton, W. Norfolk on 13 October 1980. I first saw s.g. galls resembling cotton wool on male oak catkins in E. Norfolk more than 30 years ago. Also on Pedunculate Oak at Hempton in October 1980 were leaf-galls of Cynips agama (Hartig), a gall wasp known only from its agamic form. I didn't find the characteristic spherical/globulose leaf galls of Cynips longiventris (Hartig) a.g. in East Anglia until 1970, though Mayfield had recorded them from E. Suffolk in 1937 and I had seen them in Goathland, Yorkshire, in 1956. I can now report the following occurrences, all on Pedunculate Oak: E. Norfolk - Felthorpe, 1980; Holt Country Park, 1982; Mousehold Heath, Norwich, 1982: W. Norfolk - Fouldean Common, 1970; Hempton, 1980.

The ovoid galls of Neuroterus aprilius (Giraud) a.g. were present on male catkins of Pedunculate Oak at Mousehold Heath, Norwich, on 10 June 1983. I found this insect's s.g. galls in E. Norfolk in 1951 and in W. Norfolk the following year. Knopper galls of Andricus quercuscalicis (Burgsdorf) a.g. may now be seen on acorns of Pedunculate Oak in many parts of Norfolk. I have these records: E. Norfolk - Crostwick, 1979; Felthorpe, 1979; Norwich, 1980; Haverlingland, 1980; Dunston, 1980; East Carleton, 1980; Holt Country Park, 1982: W. Norfolk - Swaffham, 1980; Hempton, 1980. A. quercuscalicis s.g. has been found in Berkshire (McGavin, 1981) but I have yet to see Norfolk specimens of this form or its galls on catkins of Turkey Oak.

Acknowledgement. I thank John Quinlan for confirming my identification of A. lignicola galls and for placing my Norfolk specimens in the BM(NH) collection.

References

- Askew, R.R. (1982) Ent. mon. Mag., 118: 116
 McGavin, G. (1981) Antenna, 5: 19-20
 Manning, S.A. (1956) Ent. Gaz., 7: 41-47

Mayfield, A. (1937) Eastern Evening News (Wild Life Note No. 1975)
Quinlan, J. (1974) Ent. Gaz., 25: 293-296.

S. A. Manning

MEMBERSHIP

On May 1st, 1983, our membership tally was:

Ordinary Membership, 264 : Family Membership, 176 : Honorary Membership, 4 :
Affiliations, 7 : Life Membership (no longer available), 9 : Ordinary Members
with Standing Orders unchanged at the subscription level of £3 and who have had
one reminder, 28 a total of 488. At that date, only a few weeks after the
A.G.M., no-one had taken up the new option of Junior Membership. Please carry
the need for new members in mind, and interest people in enrolling where you can.

EXCURSION TO SCARNING FEN, 22 June 1983

About a dozen members made a tour of Scarning Fen on a fine
evening. The most interesting plants seen were Pinguicula vulgaris (Butterwort),
Menyanthes trifoliata (Bogbean), Dactylorhiza incarnata (Early Marsh Orchid),
Dactylorhiza praetermissa (Common Marsh Orchid), Dactylorhiza fuchsii (Spotted Orchid)
and hybrids between these three, Gymnadenia conopsea (Fragrant Orchid), Drosera anglica
(Long-leaved Sundew), Epipactis palustris (Marsh Helleborine), Frangula alnus (Alder
Buckthorn), Salix repens (Dwarf willow), Blasmus compressus (Broad Blismus),
Schoenus nigricans (Bog-rush), Eriophorum sp. (Cotton-grass), Carex remota, C. flacca,
C. hirta, C. panicum, C. acutiformis, C. lepidocarpum, C. vesicaria.

Mosses and liverworts identified by Alec Bull: Acrocladium cuspidatum,
Ctenidium molluscum, Campyllum stellatum, Drepanocladus revolvens, Mnium punctatum,
Conocephalum conicum, Philonitus calcarea, Dicranum, Sphagnum rubellum agg.,
Lophocolea bidentata.

Birds apparently feeding young : reed bunting, sedge warbler,
reed warbler. Unfortunately no grasshopper warblers this year.

D. Maxey

NATURAL HISTORY RECORDS OF U.E.A. CAMPUS

Chris Gibson of the School of Biological Sciences, U.E.A.,
Norwich, NR4 7TJ, is attempting to produce a survey of the natural history interest
of U.E.A. campus, and appeals for any records of the area, or areas immediately
neighbouring it, e.g. Earlham Park. He is interested both in recent records and old,
pre-University records, since he would like to include a section on the historical
development of wildlife interest on the site. Information direct to him, please.
He hopes to complete the report by the end of 1983.

RESEARCH COMMITTEE

needs names of recorders of various plant and animal groups
to help in the survey of Thompson Common and in other projects. Offers to the
Secretary of the Committee, Miss Anne Brewster, Four Winds, Corpusty.

REPTILE AND AMPHIBIAN RECORDS

Members are requested to make a special effort to record all
their positive sightings of reptiles and amphibians. Next year a report will be
written on these groups, and the species distribution maps updated. All records
to J. Buckley, c/o Castle Museum, Norwich.

J. Buckley

EXCURSION TO ICKLINGHAM AND WEST STOW, 12 June 1983

About 30 members assembled in the picnic site car park on Ramparts Field, Icklingham, and were immediately able to appreciate typical Breck flora at its best. Being a picnic site, the turf is kept short by pressure of numbers, rather than rabbits as it used to be, the result being a close sward filled with low-growing plants, many of which were at their best. To give a full list would take up too much space, but some of the choicer plants were: Trifolium striatum (Soft Clover), T. arvense (Hare's-foot Clover), T. dubium (Lesser Clover), T. campestre (Hop Trefoil), Medicago minima (Bur Medick), Vicia sativa ssp. sativa and ssp. angustifolia & Vicia lathyroides (Common and Spring Vetches), Saxifraga granulata & S. tridactylites (Meadow and Rue-leaved Saxifrages), Sedum acre (Stoneweed), Crassula tillaea (Mossy Stoneweed), Cerastium arvense (Field Mouse-ear Chickweed), Thymus pulegioides (Wild Thyme), Myosotis ramosissima (Early Forget-me-not).

Turning into Icknield Way we walked north for about half a mile, noticing how the formerly rare grass, Bromus diandrus, is now becoming a pest of arable land, especially along the margins of barley fields, extending some way out into the corn. Turning west along the margin of the King's Forest, plants seen included Arabis hirsuta (Hairy Rockcress) and Anthyllis vulneraria (Kidney Vetch) and -- although not yet in flower -- Sisymbrium altissimum (Tall Rocket) and Thalictrum minus (Lesser Meadow Rue). Reaching another north/south track, we were arrested by a large stand of a striking alien, Vicia narbonensis, a small relative of the broad bean, with deep purple flowers, vetch-like hairy pods, and bean-like leaves with tendrils on the upper leaves. It is a native of Southern Europe, and it is suggested that it may have been grown for pheasant feed at some stage, but it would appear to have been there for a year or two and was quite at home mingled with the native grasses. Probably several hundred plants were present over at least 20 square yards. This constitutes the second record for Suffolk, the previous one being in 1900.

Butterflies numbered ten species, including a very tatty Speckled Wood near the bean colony and, on our way down the track to lunch, the first of two Brilliant Green Hairstreaks. Other species included several Small Coppers, Orange-Tips and a Brimstone during the afternoon session. For this we moved to the Country Park at West Stow to visit the reconstructed Saxon Village. We were booked in for a guided tour of the village given by the warden, Richard Darrah. This was billed to last about an hour, but our guide dealt with his subject so fully, and aroused so many questions as to how the early Saxons built their houses, how they lived, what animals they kept, what crops they grew, and many other topics, that proceedings had to be brought to a close with a vote of thanks after we had taken over an hour and a half of Mr. Darrah's time. I, for one, thought it the best 75 pence-worth I have had for many a long day.

Most people were beginning to flag by this time, but half a dozen hardy souls went round the Country Park Nature Trail which included a tour of a very nice lake created from an old gravel pit. The party finally broke up at about 17.00 hours.

Alec Bull

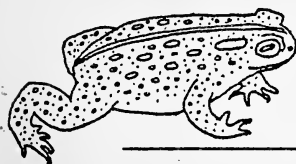
QUESTIONNAIRE

A questionnaire for members about the Society has been prepared and should be going out in the same mailing as this bulletin. The Council would be glad if there could be a good response to this since the information about members' attitudes and wishes will be very useful in planning the future of the Society.

CONTRIBUTIONS TO THE NEXT NATTERJACK

should be sent to Ernest Daniels, 41, Brian Avenue, Norwich, Norfolk, to arrive not later than October 15th. Accounts of meetings should aim to be about 300 words or less.

G. D. W.



THE NORFOLK NATTERJACK



The quarterly bulletin of the Norfolk & Norwich Naturalists' Society

No.3

November, 1983

Keeping An Eye On Things

During the summer we were surprised, not to say alarmed, to find out about a plan to extend the golf course at Eaton by taking in over ten acres of the adjacent marshland between Marston Lane and the River Yare. Since the land is subject to flooding, it was planned to build it up with hard core and soil filling -- about 12 lorry loads a day for about five years -- and so obliterate part of an area which had been picked out as deserving particular protection in this Society's Yare Valley Report of 1974. The City's Planning Committee is believed to be still considering the matter, and it is by no means certain that the scheme will go ahead, but the disturbing thing is that the golf club had applied for, and been granted, planning permission for the development over a year ago. Despite this apparent hurdle, the plan was unknown to the Nature Conservancy Council, to the County Naturalists Trust, to the Royal Society for the Protection of Birds, to the British Butterfly Conservation Society, and to other like societies including our own. Despite the theoretically public nature of the planning procedure, the whole scheme seems to have been kept remarkably quiet.

Every planning application has to be made to the local District Council (which in this case was the City Council) and although some of the major schemes, such as gravel workings, may have to be passed on to the County Council, they too will pass through the District level in the normal way. The District Councils have an obligation to deal with applications within eight weeks, but since copies of all applications must be passed to the local Parish Councils who must be given at least two weeks to offer an opinion, it is difficult for a District Council to act in less than three weeks. In short, every planning application will reside at District Council level for at least three weeks where it will appear on a list of planning applications received which is open to public scrutiny. A visit to the planning department of your local council about once a fortnight should, therefore, be enough to keep an eye on proposed developments in your area, and if you stumble across something significant, you can ring the alarm bell, or tell us about it and we will. It is boring work, of course, ploughing through hundreds of loft conversions, garage extensions, caravan standings, and so on: and you may need some local knowledge or research to know if the proposed 350 dwellings at Bloggs Road seems likely to threaten sites of value; but as things stand, it is the only way of keeping up our guard. I understand that double-glazing salesmen use the system to sniff out business, and our vigilance seems to be an altogether more worthy cause. So, if you have time, or can arrange with several local people to divide the task, keeping an eye on planning proposals for your district can be made a valuable part in our overall conservation aims.

G. D. W.

Norfolk Gall Notes

Gall Wasps (Hymenoptera, Cynipidae): In the second issue of The Norfolk Natterjack I reported finding galls of Andricus lignicola (Hartig) agamic generation at Holt, East Norfolk. I now record the presence of galls of this species, again on Pedunculate Oak (Quercus robur L.), at Cromer, East Norfolk, on 7 July 1983.

Gall Midges (Diptera, Cecidomyiidae): Since I last published records of Norfolk gall midges (Manning, 1955, 1956) I have found these additional species in the county: Didymomyia tiliacea (Bremi). Galls occurred on leaves of lime, (Tilia sp.) at Weeting-with-Broomhill, West Norfolk, on 9 September 1980. I had found these galls at two places in Cambridgeshire in 1968-69 (Manning, 1970) and at Santon Downham, West Suffolk, in 1968. The gall of this species is visible on both sides of the leaf, the portion on the upper surface being cylindrical while that on the lower surface is hemispherical. The inner gall, with its single brilliant yellow larva, falls to the ground at the end of June, but the space left is filled by the proliferation of the outer gall and the surrounding leaf tissue often becomes reddish.

Harmandia globuli (Rubs.). Larvae of this species were present in small, thin-walled globular galls on the upper surface of leaves of aspen (Populus tremula L.) at Felthorpe, East Norfolk, on 20 June 1981.

Mycodiplosis sp. Early instar larvae of an unidentified Mycodiplosis species were associated with the rust fungus Melampsora populnea (Pers.) Karst. on the underside of leaves of aspen (Populus tremula L.) at Felthorpe, East Norfolk, on 20 June 1981. The larvae feed on the spores of the rust fungus, apparently staying immobile for hours while doing so.

Galls on Leaves of Beech (Fagus sylvatica L.). I should be pleased to receive specimens of galls occurring on beech leaves. Please send with your name and that of the place of collection. Fallen leaves are well worth examining and may also yield records of leaf-mining insects.

References Manning, S. A. (1955) Ent. Gaz., 6: 205-14
Manning, S. A. (1956) Ent. Gaz., 7: 113-14
Manning, S. A. (1970) Nature in Cambridgeshire, 13: 28
Manning, S. A. (1983) The Norfolk Natterjack, No.2: 2

S. A. Manning, 9 Eversley Court, Prince of Wales Road, Cromer, Norfolk, NR27 9HR

British Bird Magazine

Once again, membership of the Society qualifies for special concessionary rates of subscription to the monthly ornithological magazine, 'British Birds'. Enclosed with the last issue of Natterjack was a leaflet giving details of the special rate applicable for the 1984 subscription - £5.75. The magazine publishes articles on many aspects of the ornithology of Great Britain and Western Europe, including much of local interest. For example, a recent issue contained a paper detailing the breeding activities of a local speciality - the Stone Curlew - on a Norfolk reserve. Every serious bird watcher should consider subscribing to this non-profit-making journal.

D.D.

Mammal Records

Rex Hancy would be glad to receive all mammal notes, particularly grey squirrel sightings. He needs the information to help in constructing distribution maps.

SOME BYGONE NORFOLK NATURALISTS - 1

Sir James Edward Smith (1759 - 1828)

The end of the 18th century saw a mini renaissance in English natural history, particularly botany, with the formation of several new societies, the emergence of a new generation of field naturalists, and the publication of several volumes which were to become definitive works of reference for many years. One of the pioneers of this revival was Sir James Edward Smith. Born in Gentleman's Walk, Norwich, in December, 1759, Smith was the eldest son of a wealthy, non-conformist wool merchant. Educated privately, through a weak constitution, Smith is said to have derived his love of flowers from his mother. Doubtless also of great interest to the young man was the society of amateur naturalists he met whilst attending botany classes at Hugh Rose's house at Tombland. Rose had been joint author with the Rev. Henry Bryant of the 'Elements of Botany' (1775) and had attracted the friendship of several local like-minded enthusiasts.

Smith left for Edinburgh University in 1781 to study medicine and attended the botany classes under Dr. John Hope, one of the earliest teachers of the Linnean system, and had time to begin a natural history society in that city. However, his future was to be irrevocably cast when, two years later, he went to further his studies in London and met Sir Joseph Banks. On the death of the great Swedish naturalist, Linnaeus, his widow offered to Banks the precious collection of books, manuscripts, plants, etc. for 1,000 guineas. Banks declined but on his recommendation Smith, with no little help from his father, purchased the entire collection and had it shipped to his apartments in Chelsea. (A spurious tale recounts how the Swedish king ordered the boat carrying the collection to be captured and returned).

Not long after this, Smith left the country for that social and educational indulgence afforded to the well-to-do young men of the period - the Grand Tour. On his return from the continent, in 1787, he discussed with friends the formation of a new natural history society in the name of the late Swedish naturalist, and his brainchild was duly born in February, 1788. The Linnean Society thus began with 73 members, and Smith was chosen as first President - a role which he enjoyed exclusively and autocratically until his death in 1828.

Smith retired to Norwich soon after his marriage in 1796 but it was from his native city that he penned most of his important works. The classic 'English Botany' with illustrations by James Sowerby, though begun in 1790 was completed in Norwich in 1814. There followed 'The Introduction to Physiological and Systematic Botany' (1807) and 'The English Flora' (1824-1828) and quite literally thousands of articles. These books remained definitive works for many years. Apart from his knighthood (1814) he was honoured by many foreign academies. He died at his home in Surrey Street on March 17th, 1828. The Linnean collection was later bought by the Society for £3,000.

Michael Bean

Churchyard Survey

In 1981 the Botanical Society of the British Isles launched a survey of churchyards throughout Britain. The aim was to identify the top 10% of churchyards in each county for their botanical interest. With this information, local naturalists will be in a better position to advise on their management if asked. Since 1981, 84 churchyards have been visited in East Norfolk (that is the part of the county lying east of a line from Blakeney Point to South Lopham) by some members of the Society and many members of the Trust. Much of the credit for this is due to the efforts of Bob Leaney. However, that still leaves an estimated two hundred churchyards to be visited in Norfolk alone.

If any members are interested in helping with this survey, please get in contact with me at the Castle Museum. Churchyards partially or totally surveyed

during 1981-3 are: Alby, Antingham, Attlebridge, Aylmerton, Baconsthorpe, Barford, Barningham, Bedingham, Beeston Regis, Bessingham, Binham, Bodham, Bradfield, Brandon Parva, Brinton, Broome, Buxton, Bylaugh, Calthorpe, Catfield, Claxton, Cley, Coston, Denton, Ditchingham, Drayton, East Ruston, Edgefield, Ellingham, Elsing, Erpingham, Felbrigg, Gimmingham, Glandford, Gresham, Hales, Hanworth, Hardingham, Heckington, Hedenham, Hemblington, Hingham, Horsford, Horstead, Hunworth, Kimberley, Knapton, Langham, Loddon, Lyng, Morley St. Botolph, Morley St. Peters, Morston, Mundesley, North Barningham, Rackheath, Roughton, Runhall, Sheringham, Shimpling, Shotesham All Saints, Shotesham St. Mary's, Sisland, Southrepps, Stody, Stratton Strawless, Swafield, Swainsthorpe, Thorpe Market, Thwaite, Thwaite St. Mary, Trimmingham, Trunch, Tuttington, Upper Sheringham, Upton, Walsingham, Warham All Saints Warham St. Mary's, West Beckham, West Runton, Wickmere, Wiveton, Wrampingham.

I can thoroughly recommend this survey as a way of getting to know Norfolk and its botanical and architectural riches. It is also an ideal way of spending a pleasant summer's day.

Peter Lambley

Butterfly Records

The Natural History Department of the Castle Museum would be glad to receive any records of the Clouded Yellow and the Camberwell Beauty seen in 1983.

Lifts to Meetings

In their returns to the recent questionnaire, a number of members said they would appreciate the offer of a lift to Society meetings. They were:

Mrs. B. Buckton, 23 Thorpe Avenue, Thorpe St Andrew. Norwich, NR7 0XA
Mr. & Mrs. Butlin, 18 The Paddocks, Old Catton, Norwich
Mrs. M. Cooper, 32, Grove Walk, Norwich, NR1 2QG
Miss G. Gibbons, 9 Irving Road, Norwich, NR4 6RA (evening meetings only)
A. Hare, 'High Minton', Hillside, Norwich Road, Cromer, Norfolk
Mrs. J.M. Humphris, 20 St Edmunds Road, Taverham, NR8 6PB (occasionally)
S.A. Manning, 9 Eversley Court, Cromer, NR27 9HR (0263-513673)
A. Parr, 67 Crown Road, New Costessey, Norwich
Miss S.D. Vaughan, 43 The Ridgeway, Valley Drive, Norwich, NR1 4ND

The Broads Review

The Society sent a detailed response to the Countryside Commission's request for comments on their Broads Review, a copy of which was also sent to the local press. On September 29th last the Eastern Daily Press reported:

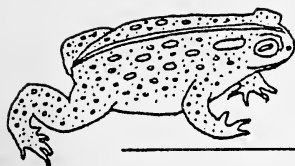
"A Broads National Park would be the best way of protecting Norfolk's waterways and wetlands, according to Norfolk and Norwich Naturalists' Society. In comments on the future of the Broads administration, the society states: "The Broads deserves an administration with a long-term future, with the necessary powers for effective action and with an appropriate number of members representing the national interest."

Contributions to the next Natterjack

should be sent to Ernest Daniels, 41 Brian Avenue, Norwich, Norfolk, to arrive not later than January 15th, 1984.

(....and a Happy Christmas to all our readers!).

G. D. W.



THE NORFOLK NATTERJACK

LIBRARY

The quarterly bulletin of the Norfolk & Norwich Naturalists' Society

No.4

February, 1984

Awakenings and Re-awakenings

We are far enough into the new year to see the first signs of a new growing season, and to take a quiet satisfaction in lengthening catkins, swelling buds and the very early spring flowers. But other things are moving, and with the renewal of controversy over the Halvergate marshes during the last fortnight comes the unwelcome reminder that much wildlife is under siege. Incredibly, the farmers have manoeuvred themselves into a position where they cannot lose. If, despite the wealth of existing arable land and surplus produce, the farmers decide to break up species-rich wetlands, they will be paid guaranteed intervention prices, given grants from the Ministry of Agriculture and helped by the Inland Revenue. If they decide not to plough, they will be richly compensated by the ratepayers and the taxpayers. Somehow we shall have to harness the gathering public disquiet about the situation to gain a better deal for conservation.

The new year has also brought news of the proposed initiation of another conservation group, focussing its energies on urban wildlife in the Norwich area. According to a count we carried out last year, there are now about 34 organisations in the county (counting the seven regional groups of the Trust) dedicated to some aspect of wildlife, most frequently its conservation: in many ways a heartening sign of the interest in, sympathy for and enthusiasm surrounding nature, although with so many unco-ordinated voices, the strength of the movement is dissipated. It is, perhaps, significant that the most recent warnings about Halvergate came from a national rather than a local organisation.

So caring is important, but caring is not enough: a shared caring, and an audible caring are needed. It's time that we all got together and pooled our concerns and spoke as loudly as we can with as much unison as we can find.

G. D. W.

Questionnaire Results

About 80 members responded positively to our questionnaire, which is approaching 20% of the membership -- a figure considered to be quite good for this kind of exercise. Our thanks to all those who gave of their time to being positive! The replies ranged from fully completed returns (including the back of the form covered with closely handwritten suggestions) to an octogenarian who felt he could no longer play a very active part, but wanted to point out that we had spelled 'Questionnaire' with only one 'n'!

One of the surprises proved to be the large number of members asking for mid-week, daytime meetings -- about half of those who replied, in fact. This season one such meeting is planned, so we hope to see 40 of you there: I shall be

leading it myself!

Quite a few parents felt that something in the way of 'Nature Workshops' would be useful during the school holidays during the week. Something may well transpire on these lines since, fortuitously, one or two members expressed an interest in helping with projects of this kind.

For people who have difficulty in sorting out grid references (and I know from my B.T.O. organising experience that many people do) it is suggested that the programme might also include rough directions to excursion sites. The answer is that there isn't room in a tightly packed programme card, but don't despair: we have decided to try to include a programme preview in Natterjack which will detail the information you need.

Perhaps the most significant feature was the number of people who offered to give talks, or who knew of suitable sites for excursions. The outcome of this will be seen when we publish the 1984/85 programme which will be built around your offers and suggestions and, if your offer or suggestion has not been taken up this year, don't lose heart: the others are all on file and will be taken out and looked at again when we start planning the 1985/86 programme!

Alec Bull, Chairman, Programme Committee

Bird-Watching Excursion to North Norfolk -- December 11th, 1983 -- led by Charles Neale

A small group of only eight people gathered at Blakeney on a cold but bright, clear morning. From the car park, whilst waiting for possible late arrivals, we had good views of large numbers of brent geese in flight. As we set off along the bank, a kingfisher flew along the channel. This promising start was the beginning of an excellent morning's bird watching. Lighting conditions were near-perfect and we had very good views of waders on the mud flats. The following species were seen at Blakeney: little grebe, cormorant, canada geese, brent geese, shelduck, widgeon, goldeneye, kestrel, oystercatcher, ringed plover, grey plover, lapwing, dunlin, redshank, bar-tailed godwit, curlew, black-headed gull, herring gull, great black-backed gull, kingfisher, skylark, yellowhammer, reed bunting, chaffinch, greenfinch, house sparrow, starling.

After a short stop at Cley where we ate our lunch and observed a large flock of brent geese, lapwing and golden plover, seven of the party drove to Felbrigg Hall where other members were waiting for us. It had snowed at Felbrigg during the night, and the difficulty of walking quietly in the snow-covered wood, combined with rapidly failing light, meant that few birds were seen during our one-and-a-half hours there. The highlight of the afternoon was a close-up view of a goldcrest just before we returned to the cars. The following species were seen at Felbrigg: wood pigeon, goldcrest, blue tit, long-tailed tit, nuthatch, wren, redwing, blackbird, robin.

Mike Poulton

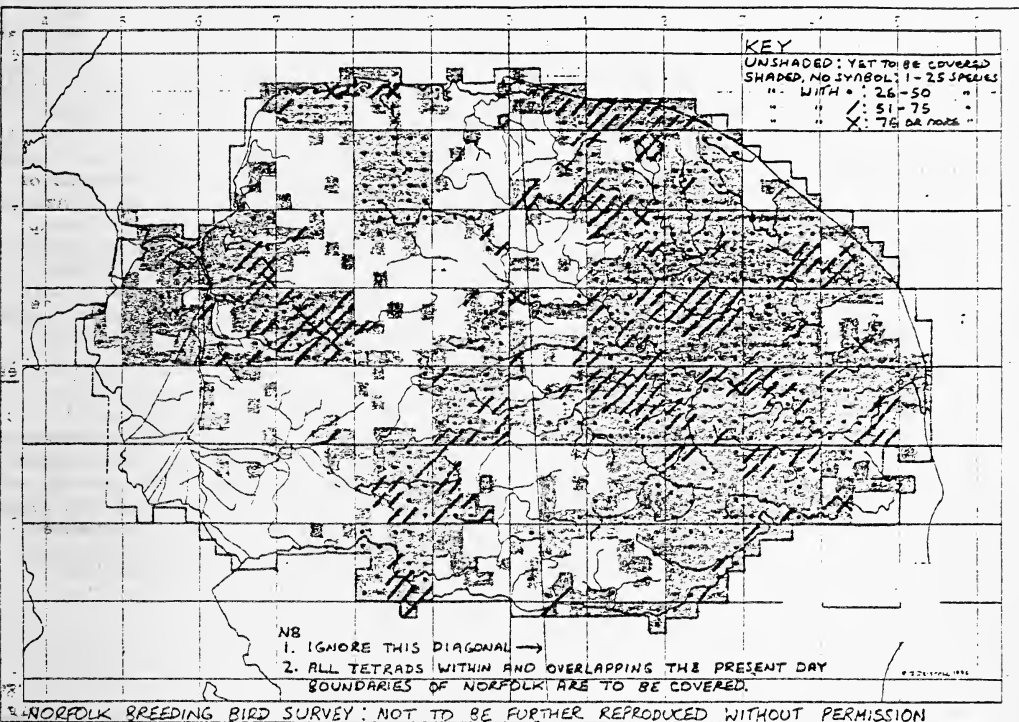
Norfolk Breeding Bird Survey

The direction of this Survey was taken up by Geoffrey I. Kelly subsequent to the resignation of Barrie D. Harding early in 1983. Certain rumours circulated to the effect that this project had been abandoned, but this has not been the case; indeed considerable progress was made during the 1983 breeding season. However, it is now deemed that the period of the Survey will have to be extended one further year; that is, to finish after the 1985 breeding season. Present analysis is that such an extended period should allow adequate work to be undertaken in all 1455 Norfolk tetrads -- this total including those which overlap adjoining counties, as well as part (coastal) ones.

Of the 927 tetrads for which results are on file (on 31st January, 1984), 572 have over 25 species recorded. Such coverage can be regarded as from fair to excellent, depending upon the precise location of each tetrad. A more detailed

breakdown of coverage so far is conveyed by the accompanying map.

All Society members who have not helped with the Survey so far are invited to do so. Offers to take on but a single tetrad, or to supply casual records, will be welcomed of course. However, volunteers are particularly needed to work in areas where coverage has been thin or non-existent (see map).



Please contact Geoffrey Kelly, c/o Natural History Dept., Castle Museum, Norwich, NR1 3JU. His home telephone number is Norwich 898646. Further information will be gladly provided, and all offers of help are looked forward to.

Geoffrey Kelly

Some Bygone Norfolk Naturalists - 2

Dawson Turner (1775-1858)

In the early years of the 19th century many of the leading figures in English natural history were wealthy amateurs whose social position allowed them to follow the fashionable pursuits such as botanizing. Prominent among these was Dawson Turner.

Turner was born at Yarmouth in October, 1775, the son of a banker, and was educated at North Walsham Grammar School and then, privately, by the renowned Norfolk botanist, the Rev. Robert Forby, rector of Fincham. Although he entered Pembroke College, Cambridge, to read divinity, his stay there was for no longer than a year for, in 1794, on the death of his father, Turner was forced, albeit not unwillingly, to return to Yarmouth to run the family's bank. It was from here that he conducted most of his natural history.

His interest had been encouraged from an early age, by Forby of course, but also by that remarkable Yarmouth naturalist, Lilly Wigg, whom Turner was to help in the future. He communicated with many leading naturalists of the day, and sent a constant supply of rare plants to James de Carle Sowerby (whose 'English Botany' was begun in 1790), while exchanging more locally common species with distant botanists. Other men whom he counted among his correspondents included Sir Joseph Banks and his close friend James Edward Smith. Later, such eminent figures as Sir Charles Lyell, Sir Richard Owen and Sowerby himself were to grace the rooms of the Yarmouth bankhouse.

Turner had studied seaweeds at Sheringham and Cromer as well as along the coast nearer Yarmouth, and these researches formed the basis of his first botanical work, 'A Synopsis of British Fuci' of 1802 (incidentally a year in which he also described four new species of lichens). Three years later the pioneering 'Botanists' Guide through England and Wales' appeared. Written in collaboration with Lewis Weston Dillwyn, Turner had circulated around the country a printed four-page questionnaire seeking plant records, thus producing not only a topographical handbook for collectors but also leading the way for what has become known as 'network research'. Further publications and discoveries followed and in 1808 there appeared the first volume of what was perhaps Turner's most celebrated work, the four-volume 'Fuci...'. It was published between 1808 and 1819 and contained 258 plates. The ordinary edition sold for £21. A number of the illustrations were executed by William Jackson Hooker, later of Kew Gardens, who became Dawson Turner's son-in-law.

This mammoth undertaking was Turner's last botanical work. The travelling in search of fresh specimens declined and instead, Turner was seeking antiquarian treasures. The remainder of his life was taken up, primarily, with historical research and the consolidating of his huge collection of books and manuscript. After his second marriage in 1851, he departed to London, and it was at Old Brompton that he died and was buried. Turner had made much of the privileges of his birth, and natural history was a great beneficiary. Although he specialised within the cryptogamic (non-flowering) groups of plants, such as lichens, mosses and seaweeds, his love of communicating bound together many of his contemporary workers - and at a time when naturalists were just beginning to enjoy the benefits of national organisation.

Michael Bean

Spring Excursions, 1984

Sunday, February 26th - Joint birdwatching excursion with the Denver, Fordham, Roxham and Ryston Village Trust. Meet at Denver Mill, just off main road, two miles south of Downham Market (TF.605013) at 13.30 hrs.

Sunday, March 4th - Snettisham R.S.P.B. Reserve. Meet at Snettisham beach car park, signposted from the main road (TF.648335) at 11.00 hrs. Leader - A.Bull.

Sunday, April 29th - Walk by beach from Holkham to Gun Hill, returning through woods. Meet at Lady Anne's Drive, Holkham (TF.891448) at 11.00 hrs. Leader - P.Banham.

Sunday, May 6th - Mousehold Heath. Morning session only. Arranged for beginners and newcomers. Meet 10.30 hours in car park, Gurney Road. Leaders - R.Evans, R.Hancy.

Saturday, May 12th - Spring Walk by woodlands and lakeside at Blickling. Meet 10.30 hrs at the Orchard car park, Blickling Hall. Carry packed lunch for circular tour. Leader - D.Neale.

Sunday, May 20th - Mossymere Wood, Saxthorpe. Meet down lane near keeper's cottage (TG.134314), 2 miles N.E. of Saxthorpe off the Saxthorpe/Itteringham road.

Picnic lunch. Leader - Mrs. A. Brewster.

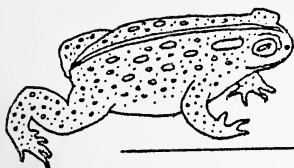
Sunday, June 3rd - Whin Common, Denver, jointly with Denver, Fordham, Roxham and Ryston Village Trust. Meet TF.618010 at 11.00 hrs. Picnic lunch.

Alec Bull (Chairman), Joyce Robinson (Secretary)
Programme Committee

Contributions to the next Natterjack

should be sent to Ernest Daniels, 41 Brian Avenue, Norwich, Norfolk, to arrive not later than April 15th, 1984.

NATTERJACK



The quarterly bulletin of the Norfolk & Norwich Naturalists' Society

No. 5

May, 1984

Conserving roadside verges

In 1971 the Committee of this Society decided to take initiatives towards the identification and conservation of roadside verges in Norfolk that had a marked natural history value. During the following ten years a great deal of work was done by many volunteer helpers co-ordinated by Alec Bull, who wrote up their findings in the Transactions (Vol. 26, Pt. 1, pp. 23-35, 1982). There were discussions between the Society and the Nature Conservancy Council, and the then Conservation Officer of the Norfolk Naturalists' Trust took over responsibility for negotiating with the county Highways Dept. and local District Surveyors. The records of the verges found to have conservation value were deposited with the Trust, since county Trusts have proved to be appropriate bodies to operate such conservation schemes in other counties.

Recently, however, the Trust has said that it has been unable to find a volunteer to co-ordinate the project, and with its present workload is very unlikely to be able to do anything in the near future. It believes that it is time that the data was given back to the Society in the hope that something can be done to protect the flora on these sites. So what is to be done? Alec has been looking for somebody with conservation in their hearts and time on their hands, and thinks that a retired naturalist would be the ideal person. Certainly one such, Edgar Milne-Redhead, has set up and runs a very successful scheme in Suffolk. However, one person cannot manage it alone, and over the border individuals take responsibility for about a hundred individual areas, with various levels of co-ordination with highways department, area surveyors and cutters, and with the Suffolk Trust supplying and maintaining the marker posts.

If we have a willing Co-ordinator among our readers, I would be glad to know so that we can start to sort out a scheme. But the damage does not wait while we search, and it may be better to start at the other end. There are probably many interested people who would not mind keeping an eye on some chosen stretch in their parish, seeing that marked stretches receive the agreed maintenance, and reporting in from time to time about how things are going. We are asking members first, but we shall probably extend our search beyond the Society for any local people who will adopt their local prime verges. Alec has been good enough to give me a list of about 50 verges which, at the time of his surveys, were considered worth looking after. His list is:

- | | |
|----------------|---|
| 1. Shernborne | TF.714324 All roads leading away from this crossroads. Chalk flora. |
| 2. Ringland | TG.134140-137133 <u>Medicago falcata</u> & <u>M. x varia</u> |
| 3. Swannington | TG.149171 All roads. Heathy flora inc. <u>Epipactis helleborine</u> |

4. Barton Bendish	TF.724058-738064	Exceptional chalk flora: 173 species recorded.
5. Barton Bendish	TF.728074-745084	Chalk flora.
6. Stalham	TG.378255-382257	<u>Sambucus ebulus</u>
7. Brooke	TM.270979-268990	Boulder clay verge
8. Shotesham	TM.257968-255985	Boulder clay verge
9. Brisley	TF.943217-943220	Boulder clay verge inc. <u>Vicia lutea</u>
10. Beetley	TF.944184	Short length. <u>Melampyrum cristatum</u> , <u>Campanula trachelium</u>
11. Gateley	TF.950239-958242	Excellent boulder clay verge.
12. Felthorpe	TG.175184-179186	Formerly <u>Solidago virgaurea</u> ; doubtfully now.
13. East Bradenham	TF.931085-934098	Boulder clay flora; formerly <u>Aquilegia vulgaris</u>
14. Morley St. Peter	TG.065987-073987	Excellent flora
15. Stiffkey	TF.976433	<u>Scrophularia vernalis</u> : its locus classicus
16. Bedingham	TM.284908-263914	<u>Trifolium ochroleucon</u> abundant
17. Peddars Way	TF.727356-729351	Chalk grassland
18. Peddars Way	TF.739329-747308	Chalk grassland
19. Toft Monks	TM.436946-439949	Good woodland flora
20. Denton	TM.285873-295873	Boulder clay flora
21. Seething	TM.308976	<u>Sambucus ebulus</u>
22. Ringstead	TF.715399-728395	Chalk grassland inc. much <u>Filipendula vulgaris</u>
23. Denton	TM.284872-284874	Excellent boulder clay and woodland flora
24. Ditchingham	TM.336925-337927	<u>Saxifraga granulata</u> abundant
25. Howe	TM.275999	<u>Polystichum setiferum</u> ; about 50 plants
26. Denton	TM.288886-289889	Boulder clay inc. <u>Genista tinctoria</u>
27. Alburgh	TM.253899-258881	Boulder clay inc. <u>Primula veris</u>
28. Wortwell/Alburgh	TM.252859-278863	Boulder clay inc. <u>Anacamptis pyramidalis</u>
29. Ellingham	TM.360924-362923	Boulder clay inc. <u>Parentucellia viscosa</u>
30. Morningthorpe	TM.217928-207921	Boulder clay inc. <u>Geranium pratense</u>
31. Flordon	TM.182976-187974	Boulder clay inc. <u>Ophrys apifera</u> , etc.
32. Titchwell	TF.764423-763437	Chalk grassland flora
33. Colney Lane, N.	TG.181079-197058	Mixed flora inc. <u>Verbascum pulverulentum</u>
34. Mileham	TF.932188-933187	Boulder clay inc. <u>Trif. ochro.</u> , <u>Poterium sang.</u>
35. Mattishall	TG.033117-032119	<u>Crepis biennis</u> abundant
36. Stibbard	TF.985283-987282	<u>Equisetum hyemale</u> abundant
37. Foulton	TL.788996-795997	Chalk breckland flora
38. Denton	TM.258888-266898	Boulder clay flora inc. <u>Anacamptis pyramidalis</u>
39. Thwaite	TM.336927-333948	<u>Anacamptis pyramidalis</u>
40. Redenhall	TM.248873-248867	<u>Trifolium ochroleucon</u> very abundant
41. Saxthorpe	TG.117306-131322	Excellent mixed flora inc. liverworts
42. Shotesham	TM.263977-271966	<u>Trifolium fragiferum</u>
43. Felbrigg	TG.208387	Excellent mixed flora inc. much <u>Thalictrum minus</u>
44. Thetford	TL.879833	<u>Veronica triphyllos</u> , <u>V. praecox</u>
45. Edgefield	TG.115336	Excellent heath type flora
46. Sustead	TG.186374	<u>Orchis mascula</u> , <u>Phyllitis scolopendrium</u>
47. Cranwich	TL.767957-775951	Chalk breckland flora
48. Drymere	TL.784065	Chalk breckland flora
49. Wretham Thorpe	TL.892906	Chalk breckland flora
50. Cranwich	TL.768941	Excellent chalk breckland flora
51. Thetford golf course (beside)		Breckland rarities

So if you can spare a little time to represent the verges of your parish or area (or are interested enough to adopt verges in another area) please let me know (Dr. G. D. Watts, Barn Meadow, Frost's Lane, Gt. Moulton, Norwich, Norfolk, NR15 2HG). You don't have to be a botanist or use a scythe or commit yourself for ever and ever. And if you are interested in co-ordinating such a scheme, I would be even more pleased to hear from you!

G. D. W.

Some Bygone Norfolk Naturalists - 3

William Jackson Hooker (1785 - 1865)

When Hooker died in London in August 1865 he was the grand old man of English botany. Among his many achievements may be counted about one hundred botanical works, the foundation of a museum of economic botany, the advancement of botanical research in the colonies and the transformation of the royal gardens at Kew into a national institution. After he left the brewery at Halesworth for the chair of botany at Glasgow University in 1820, he made only short visits to Norfolk and Suffolk; but they were affectionate returns to an area where he learned his consummate skills as a naturalist.

William Jackson Hooker was born in Magdalen Street, Norwich, on July 6th, 1785, and educated at King Edward VI's Grammar School in the Cathedral Close. Undoubtedly his father's love of plants, particularly his passion for collecting exotics and succulents, instilled in him an interest for natural history: at an early age Hooker was studying insects and developing a talent for draughtsmanship.

In 1789 he inherited his godfather's property near Chatham and went to Starston to learn estate management. While there he studied the entomology and botany of the district and corresponded with some of the leading naturalists of the day, especially the Rev. William Kirby, vicar of Barham in Suffolk. In his spare time he also visited the Broads and coast to study the habits of the rich birdlife there. At the age of twenty he was back in Norwich, helping Mr. Simon Wilkin who was planting his experimental botanic garden under the Linnean system at Mill House, Costessey.

An early friend of Hooker's was Sir James Edward Smith (see 'Natterjack 3') who advised the young naturalist to specialise in botany. So Hooker searched the country around Norwich for specimens, and towards the end of December, 1805, while visiting Sprowston Woods, he came across a tiny moss on some tree stumps and thus made the first recorded discovery for England of Buxbaumia aphylla, a rare, leafless saprophyte with a scattered distribution. Smith encouraged Hooker to communicate his find to Dawson Turner at Yarmouth and as a result became a friend of that other leading botanist of his day (see 'Natterjack 4'). Turner eagerly seized upon the young botanist's talent for illustration, and the product of this relationship was the set of over 230 drawings for Dawson Turner's classic 'Historia Fucorum'. Other developments followed; one happy - Hooker married Turner's daughter, Maria Sarah, in 1815; the other not so, namely the business involvement with his father-in-law and a business associate, Samuel Paget, to run a brewery at Halesworth.

Hooker worked diligently, if not enthusiastically, for the business, having moved to Suffolk in 1809. However his main interest was botany and he continued to cultivate many plants in the gardens at Halesworth. While there he entertained and encouraged many eminent and burgeoning naturalists, in particular his 'pupil', John Lindley, and worked assiduously on his publications. Of these the most important was 'British Jungermannia' which appeared between 1812 and 1816 and contained 88 plates.

However, the brewery was not flourishing and Hooker's commitment to natural history was placing financial burdens on the family. So he requested from Sir Joseph Banks (who had in 1809 secured for the young naturalist a place on an expedition to Iceland) assistance in finding a position in the scientific community. Banks used his influence to secure for Hooker the Chair of Botany at Glasgow. By then William Jackson Hooker had been elected a F.L.S. (1806), a F.R.S. (1812) and his friend Sir James Edward Smith had immortalised the young Norfolk naturalist in a genus of moss which the youthful enthusiast had gathered on Holt heath: Hookeria lucens.

Michael Bean

Treasurer's Report

At the Annual General Meeting of the Society the Honorary Treasurer was able to report another successful year financially. The main feature during the year was the decision for the Society to undertake the publication of the annual Bird and Mammal Report without the partnership of the Norfolk Naturalists' Trust. Thanks to the co-operation of the Norfolk Ornithologists' Association this venture has proved to be a financially viable undertaking. A donation from the N.N.Trust made in recognition of the fact that we did not need to call on their guarantee, reduced the net charge of the Report to very modest proportions.

Generous donations were also received from Mr. T.N.D. Peet, the Norfolk County Council and the U.E.A., the last two in connection with the publication of articles in the Transactions.

A summary of the Accounts for the Session ending 31st March, 1984, as presented to the A.G.M. is given below:

<u>Expenditure</u>	<u>£</u>	<u>Income</u>	<u>£</u>
Cost of Publications	2,444	Balance at beginning of year	1,663
Cost of Lectures & Meetings	142	Subscriptions	2,097
General Expenses	1,074	Interest & Dividends	206
Other Expenses	93	Sales of Publications	1,287
Balance in hand at end of year		Special Donations	802
	2,327	Profit on Annual Supper	25
	<u>6,080</u>		<u>6,080</u>

D. A. Dorling, Honorary Treasurer - April, 1984

Thompson Recording

The help of all interested members is requested in our survey of Thompson Common North during this year. We shall be meeting on three Sundays -- May 27th, July 15th and September 16th -- at 10.30 a.m. in the car park, particularly for listing the flora, and on those dates the Research Committee will be organising some systematic recording. Help from all botanists, scribes and other aides needed. Also any lists of other flora or fauna made on these or other dates welcomed. Ann Brewster is collecting the data.

G. D. W.

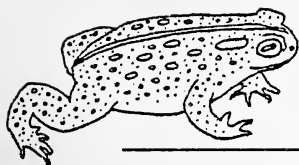
Address Labels

We have converted from the Addressograph machine with its trays of cast metal plates and hours of muscle work for each mailing, to computer printed labels. It took us about three days to enter names and addresses, but once having captured them on a floppy disc, it was only a matter of minutes to print the labels. Barring typing errors, the address on your envelope is how it appears in our records, so if in any respect it is wrong or incomplete, would you let Jeanette Wakefield ('Goldcrest' Post Office Lane, Saxthorpe, Norwich, NR11 7BL) know. Some of our addresses go back a long way so we tend, for instance, to be rather short of post codes. Making corrections is quite easy with this system, so getting it right is no problem.

G. D. W.

Contributions to the next Natterjack

should be sent to Ernest Daniels, 41 Brian Avenue, Norwich, Norfolk, to arrive not later than July 15th, 1984.



THE NORFOLK
NATTERJACK

The quarterly bulletin of the Norfolk & Norwich Naturalists' Society

No. 6

August, 1984

A CALL TO AIMS

Within the last two weeks I have received two letters which dovetail rather nicely. One was from the Charity Commission which, in connection with our application for charitable status, asks several questions, one of which is 'In what way does the Society protect endangered species and to whom are the results of surveys and investigations made available?' The other letter accompanied a discussion document jointly from the Norfolk County Council, The Norwich City Council and the South Norfolk District Council entitled 'The Future of the River Yare Valley at Colney, Bowthorpe and Bawburgh'. To quote from this last, "Whilst none of this stretch of the Yare valley is of sufficient wildlife importance to justify formal protection, nevertheless, based on earlier work by the Norfolk and Norwich Naturalists' Society, three main areas are of ecological interest: (a) Colney Wood, which contains a wide range of plant life; (b) Colney/Bawburgh Gravel Pits, important for their range of bird life. Some of their ecological value is temporary, reflecting changing conditions as the quarrying proceeds, and thus their value, particularly in terms of acclimatising plant communities, will change as extraction is completed; (c) Colney/Earlham marshes, improved grazing marshes with a range of marshland species." The document proposes three options (more of which in another time and place) but in passing says, "Any future proposals for the area should respect the ecological value of Colney Woods and the grazing marshes of Colney/Earlham."

It is conceivable that the planners' options owe nothing to the Society's work, but given the pattern of their recommendations and their comments, it seems unlikely. It is good, therefore, to see (as Roy Baker puts it) that 'the Yare Valley Survey has come of age to the planners'. It also underlines that one of the chief values of the Society to the community in which we live is to nourish and use the biological skills we command. Expertise is a wasting asset: experts grow old or move away, and it behoves all of us to polish up our little corner of knowledge, and to steer the Society into gaining and using its resources of understanding nature.

G. D. W.

MOSSYMERE WOOD - May 20th, 1984

Twenty-eight members enjoyed a walk in Mossymere Wood, Saxthorpe -- an area of open glades, conifer plantations, old oak/chestnut woodland and overgrown coppiced/scrub. In this undulating countryside bluebells carpeted the woodland floor, but the main interest was centred on the extensive regeneration of bird cherry. This was in full bloom and a beautiful sight as we walked along the rides. Early purple orchid, twayblade, yellow pimpernel and crosswort were among other plants seen. The prolific breeding of the grey squirrel was evident from the

many corpses seen on the 'gibbet'. A dead pigmy shrew was found on one of the paths. Birds seen or heard included the cuckoo, blackcap, willow warbler, turtle dove and nuthatch. In spite of recent dry weather, Reg. Evans and Co. found at least 40 items of interest. Speculation as to the origin of a very large hole in the ground, known locally as Devil's Dish, was also of great interest.

Anne Brewster

Roy Baker supplies the following account found in the Geological Memoirs for the area:

"In 1718 Mr. P. Le Neve gave "An Account of the Sinking of three Oaks into the Ground at Manington in the County of Norfolk." This may refer to some of the large holes in Mossymere Wood. The occurrence took place on Tuesday, July 23rd, 1717, in the grounds of Sir Charles Potts Bart., in the parish of Manington, "in the day time, to the great astonishment of those that were present; first, one single Oak, with the Roots and Ground about it, was seen to subside and sink into the Earth, and not long after, at about 40 yards distance, two other Oaks that were contiguous, sunk after the same manner, into a much larger Pit; being about 33 Foot Diameter, whereas the former is not fully 18.... When the first Tree sunk, it was observed, that the Water boyl'd up in the Hole; but upon the sinking of the greater Pit, that Water drain'd off into it, from the former, which now continues dry. The depth thereof to the firm Bottom is nine Foot three Inches;... In the Bottom of the greater Pit, there is a Pool of Water about 8 Foot Diameter, whose Surface is 11 Foot 3 Inches below the Ground.... The soil on which these Trees grew, is Gravelly; but the Bottom is a Quick-sand over a Clay, upon which there are Springs, which feed large Ponds adjoining to Sir Charles Potts' House, at about a quarter of a Mile from these Holes. The Nature of the Soil seems to afford us a reasonable conjecture at the Cause of this odd accident, which some perhaps may be apt to reckon as a Prodigy. The Springs running over the Clay at the bottom of a Bed of very minute Sand, such as your Quicksands usually are, may reasonably be supposed in many Ages to have washt away the Sand, and to have thereby excavated a kind of Subterranean Lake, over which these Trees grew: And the force of the Winds on their Leaves and Branches, agitating their Roots, may well have loosened the Sand, under them, and occasioned it to fall in, more frequently than elsewhere; whereby in length of time the thin Bed of Gravel being only left, it might become unable to support its own weight and that of the Trees it bore."

PUBLIC EXHIBITION MEETING

It is planned to hold a public exhibition meeting in the Ivory Room at the Assembly House from 10.30 a.m. to 5.00 p.m. on Saturday, February 16th, 1985. The exhibition will be aimed at attracting new members to the Society and will show the part played by members within the Society -- the types of excursions we hold; the part we play in organising studies of particular areas; the specialist groups, for our own interest both individually or collectively -- and serving local and national bodies outside the Society -- such as the river valley surveys, bird or plant atlas work, etc. Suggestions would be welcome, and especially offers of help or of exhibition material.

Alec Bull.

WHIN COMMON, DENVER - June 3rd, 1984

About 23 members attended. This was the second joint meeting with The Denver, Fordham, Roxham and Ryston Village Trust, the first being on Feb. 26th, 1984, when only seven of our members attended. The idea of this second meeting was to list as many as possible of the plant and animal species of Whin Common, and at a later meeting to do the same on the other commons in Denver. The common has a lot of gorse (*Ulex europaeus*) hence the name Whin Common. It was a dull day which turned into a beautiful sunny one. We were lucky to have our lunch on Mr. Sharp's lawn with seats for all. In the afternoon the members of the Village Trust had invited us to the old Pump House at Fordham which they had opened just to show us: they also ran

the Pump engine. They had laid on tea and cakes for us, and a very good day was enjoyed by all. I would like to thank all who helped with the listing, particularly Reg. and Lil. Evans, Rex and Barbara Hancy, Mike and Richard Poulton, and Geoff Watts, and all the others who attended this meeting. The lists include 97 flowering plants (incl. 14 grasses, 2 rushes, 2 sedges), 1 fern, 3 mosses, 19 fungi, 2 mammals, 27 birds, 16 insects and 9 plant galls. The lists have been lodged with the Databank at the Castle Museum.

Colin Dack

TRANSPORT

The following members have no transport and would be glad of a lift to meetings where convenient:

Mr. Michael Barker, 14, Hook's Hill Road, Sheringham

Mr. D. Otter, 2 Fountain Cottages, Kilverstone.

WEYBOURNE - June 13th, 1984

The Society's first daytime midweek meeting was considered to be a success by the 16 members who attended, and there was a general request that the experiment be repeated in next year's programme. The morning session was to the west, in front of the old 'camp', over short grass carpeted with Bird's-foot Trefoil and Dark-green Mouse-ear Chickweed, most of whose tiny starry flowers had four petals although a few with five. It was of interest to see how slight variations in situation and habitat affected the size of plants of Buck's-horn Plantain. In open sandy places the plants were small while in sheltered spots some were very large. The effect of the recent long series of fresh to strong northerly winds could be seen by the burning back of Field Convolvulus where it had encroached onto the shingle beach, and of Common Horsetail among the grass for about 20 yards back from the splash zone. At lunch time we also noticed that a barley field had had the first 20 yards or so completely burnt off by salt spray. The nicest plant proved to be the tiny Subterranean Clover which was frequent in several places. We were also pleased to find, in a depression behind the beach, an area of salting thickly clothed with the pink-flowered Sea Milkwort or Black Saltwort, and studded here and there with the larger flowers of two species of Sea Spurrey. Three species of butterfly were met with - Wall Brown, Small Heath and Common Blue, the latter being especially abundant. Ladybirds were also plentiful, these being mostly 7-spot, though we did find one of the larger *Anatis ocellata* which has a variable number of spots, each with a narrow yellow ring round them. From time to time Little, Common, and Sandwich Terns flew past but pride of place must go to a pair of Stonechats which, by their behaviour, were nesting in the area.

After lunch we walked along the base of the cliffs towards Sheringham as far as a low place which enabled us to scramble up and return along the cliff top. The strata in the cliff face itself was very interesting, and clearly exposed by recent falls. In places Colin Dack pointed out to us where the bedding planes had been turned over on themselves by the force of grinding ice during the last glaciation. Some of the softer parts of the cliff were being exploited by pairs of Fulmars, about ten pairs of which were on their ledges and were mostly very confiding. We were also treated to many displays of their superb mastery of the air currents along the cliff face. In view of their relative scarcity this year, due to adverse conditions in their winter quarters in the Sahel region of Africa, we were also pleased to find a colony of Sand Martins in residence, 55 nest holes being counted. The tideline, however, was as unpleasant as many of us could remember, being a wide band of plastic containers of various sizes, glass - mostly broken, wood, rope, cut-away fishing net, oil, cod's heads and back-bones picked clean by the gulls, a ray's back-bone and barbed tail, and several dead birds including three Guillemots not long dead as all were in summer plumage and all had been oiled. Also the skeleton and feathers of a Bar-tailed Godwit which had presumably died during last autumn's migration. Leaving this behind we scrambled to the cliff top where we found ourselves in the middle of a sea of pink Thrift in full bloom. Walking back to the car park, we

were hardly ever out of earshot of a singing Corn Bunting since not less than three singing birds were spaced out at intervals within about a hundred yards of the cliff edge. Just as we arrived back a party of five Turtle Doves flew west just offshore indicating that in this late season, some birds are still passing through.

Alec Bull

SOME BYGONE NORFOLK NATURALISTS - 4

Robert Marsham 1708 - 1797

The three naturalists who featured in the earlier studies - Smith, Turner and Hooker - were very much of their time. It's not surprising that, in an age when botany was very much the fashion, their interests should follow that direction. However, Robert Marsham was a pioneer. As an early example of that very English class of country squire and nature-lover he set, rather than pursued, the fashion of informal landscape gardening, and consistently recorded natural phenomena over the span of his long life.

We know that he was born on Jan. 27th, 1708, but little is known of his early years. Yet we learn that at the age of ten he was planting acorns, and one oak which was planted when he was 12 he measured in old age 70 years later. In Feb., 1728, Marsham went up to Clare College, Cambridge. There is no evidence of his acquiring a degree and on leaving university he returned to his father's house at Stratton Strawless. Here he pursued his country interests and in 1736 began compiling annual tables of the 'Indications of Spring' which he continued till his death. The journals which include the 'Indications' record the weather month by month, and daily incidents of both natural and general interest. Each year he observed 27 phenomena - the leafing of sycamore, oak, chestnut and lime; the flowering of hawthorn, turnip and wood anemone; the singing of the thrush and nightingale; and the building of rook's nests, to name but a few. The 'Indications' were communicated to the Royal Society in 1789. While the scientific value of some of the phenomena may be questioned the series undoubtedly reveals an interesting record of the passing seasons two centuries ago. Marsham tells us of the "three winter year" of 1754 when large numbers of livestock and birds perished, and the hot summer of 1757 when the temperature reached about 86 degs. in mid-July.

After Cambridge he pursued tree-planting in earnest. Although his estate was not large he planted many of his favourite beeches and, on poorer land, Scots pine, spruce and silver fir. In 1743 he began recording the annual growth of ten species of trees and communicated his findings to the Royal Society. He began experimenting with ways to increase the growth of his beeches by washing and scrubbing their trunks with water and a stiff shoe-brush. He found that this operation, when performed several times a week throughout the summer, caused an increase in growth.

Marsham continued planting and studying trees into old age, but a fresh impetus was given to his life in 1790 when he bought a copy of Gilbert White's 'Natural History of Selborne'. The effect on Marsham was profound. He wrote a long letter to White describing his observations and the two men continued their correspondence until the latter's death three years later. They obviously derived the greatest pleasure from their exchanges. Marsham wrote of his trees, the weather, the migration of woodcocks and herons, the indications of spring and a strange bird which became the first British record of the wallcreeper. Marsham died on Sep. 4th, 1797. Most of his estate was felled during the 1914-18 war.

Michael Bean

LANDGUARD COMMON, FELIXSTOWE - July 1st, 1984

Eleven members undertook the long journey to the southern extremity of Felixstowe and were rewarded by a sunny day which showed the flowering plants at their best. Many of the Landguard specialities associated with the shingle

and stabilised dunes were seen, although most of the early annuals had passed over. However, a few flowers were lingering on Ranunculus parviflorus which apparently became extinct in Norfolk in the late nineteenth century. Other noteworthy finds, or those which excited greatest interest among the participants, were: Brassica nigra, Diplotaxis tenuifolia, Crambe maritima (in great quantities), Barbarea verna, Sisymbrium orientale, Tamarix gallica, Moenchia erecta, Sagina maritima, Medicago minima (in fruit), Trifolium ornithopodioides, T. suffocatum, Vicia lutea, Lathyrus nissolia, Rosa rubiginosa, Sedum anglicum, S. album, Crithmum maritimum, Euphorbia paralias, Rumex tenuifolius, R. pulcher, Armeria maritima, Echium vulgare (forming blue expanses beside Landguard Road), Calystegia soldanella, Hyoscyamus niger (in profusion), Marrubium vulgare, Inula conyza, Dittrichia viscosa, Carduus tenuiflorus (abundantly), Anthemis cupaniana ssp. punctata, Onopordum acanthium, Leontodon taraxacoides, Lactuca serriola and L. virosa.

One of the most remarkable features of the Landguard flora is the wealth of grass species and those seen included Vulpia fasciculata, V. bromoides, V. myuros, V. ciliata ssp. ambigua, Desmazeria rigida, D. marina, Cynosurus echinatus, (in sheets), Bromus diandrus, B. madritensis, B. erectus, B. hordaceus ssp. thominii, B. commutatus, Elymus pycnanthus, E. farctus, Parapholis incurva and P. strigosa.

The moderate south-easterly breeze meant few butterflies on the wing, although glimpses were had of Meadow Brown, Small Heath and Common Blue. Brambles defoliated by larvae of the Brown Tail Moth were examined and several Garden Tiger caterpillars were discovered feeding on Malva sylvestris and Melilotus officinalis.

Arthur Copping

CONSERVING ROADSIDE VERGES

In the last issue of 'Natterjack' we listed 51 roadside verges selected from about 240 verges identified and recorded during the Society survey several years ago as worthy of conservation. In response to our invitation for members to become voluntary wardens and adopt one or more of these roadside stretches we are grateful for the following offers:

Anne Brewster	Nos. 41, 43, 45, 46	Lil Evans	Nos. 12, 35
Dr. Ruth Hadman	Nos. 16, 20, 21, 23, 26, 27, 28, 38		
Richard Harmer	No. 36	Mary Kett & Leslie Swindells	Nos. 7, 25
Dr. Charles Petch	Nos. 10, 15	Cathy Proudlove	No. 19
Alan Scowen	Nos. 17, 18		

This is a very encouraging start covering nearly half of the sites so far on offer, but we would be glad of lots more offers of help with the sites not so far taken up, or even offers of a general nature. Meanwhile there is a lot of work to be done in re-sorting the sites geographically so that wardens can be put in touch with a local cluster of sites, and an organisation built up from parish level. There is the probability of help from one or other branch of the local authority for marking sites, and we are corresponding about management agreements which are now some years old and probably no longer functional. Certainly some good sites have been wiped out in the years between, and we are too far into this season to do more than keep an eye on things and look to a developing organisation by next year.

G. D. W.

CARLTON MARSHES, CARLTON COLVILLE - July 8th, 1984

A select group of naturalists crossed into Suffolk to see the tiny gem of a reserve managed by R. Briggs for the Suffolk Trust. It comprises grazing marsh, carr, reedbed and two small broads, all saved in the nick of time from arable development.

It was certainly worth saving for its aquatic plants alone. In the first dyke we met three of the four British duckweeds, and a little further on we saw all three 'freshwater buttercups' available in these parts - Ranunculus lingua, R. flammula and R. sceleratus. We examined Hornwort, Bladderwort, Sweetgrass and Reed Canary-grass, and fished Potamogeton friesii from the water. On the marshes, which are grazed and cut, we saw Adder's-tongue fern. At the back of the reserve the landscaping area contains two very shallow broads, one of these so shallow that large areas of mud were exposed. These will shortly be mud-pumped to make a better habitat, although Ceratophyllum grows well in Sprats Water and Utricularia covered the Round Pond completely last year. Tench and carp wallowed in the shallows, their backs exposed to the hot sunshine, like basking crocodiles in the jungle atmosphere. The behaviour of dragonflies and damselflies attracted attention, both their territorial and egg-laying activities.

Algae in the form of Enteromorpha intestinalis almost covered some of the dykes, and the filamentous algae Tribonema and Oedogonium were draped on every leaf of the Potamogeton. In the ponds there were bits of mud surface which had floated to the surface of the water. This usually happens on rivers in spring with the blue-green alga Oscillatoria limosa and brings up a rich array of diatoms from the mud surface. In this case the skin was formed by two other species of Oscillatoria, and diatoms were almost completely absent. It is a pity that so few members visited this area, but the Suffolk Trust would welcome naturalists at Sprats Water reserve at any time, and if you are near Lowestoft it is well worth an hour or so.

NEW WORDS FOR OLD FRIENDS

With the completion of the Flora Europaea and the publication of the 3rd edition of Clapham, Tutin and Warburg's 'Excursion Flora', a revised nomenclature for flowering plants is creeping up on us (some of it in the last few pages). I've been through my field-worn Hubbard to bring my grass names up to date:

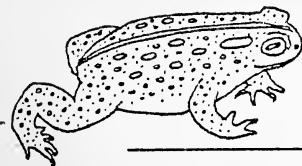
Bromus hordeaceus ssp. hordeaceus (B. mollis) Elymus caninus (Agropyron donianum and Bromus repens (Agropyron repens) Elymus pycnanthus (Agropyron pungens) A. caninum)
Elymus pycnanthus x E. farctus (Agropyron x obtusiusculum)
Elymus farctus (Agropyron junceiforme) Leymus arenarius (Elymus arenarius)
Festuca longifolia (Thuill.) (F. caesia) Festuca guestfalica (F. longifolia (auct. non
Festuca nigrescens (F. rubra ssp. commutata) Lolium perenne ssp. multiflorum (L. multifl.
Vulpia ciliata ssp. ambigua (V. ambigua) Vulpia fasciculata (V. membranacea)
Vulpia unilateralis (Nardurus maritimus) Puccinellia distans ssp. borealis (P. capillar.
Puccinellia distans ssp. distans (P. distans) Desmazeria rigida (Catapodium rigidum)
Desmazeria marina (Catapodium marinum) Sesleria albicans (S. caerulea)
Avenula pubescens (Helictotrichon pubescens) Avenula pratensis (Helictotrichon pratense)
Avena sterilis ssp. ludoviciana (A. ludoviciana) Koeleria macrantha (K. cristata)
Deschampsia caespitosa (D. alpina) Anthoxanthum aristatum (A. puelii)
Agrostis curtisii (A. setacea) Agrostis canina (A. canina ssp. canina)
Agrostis vinealis (A. canina ssp. montana) Agrostis capillaris (A. tenuis)
Polypogon semiverticillatus (Agrostis semiverticillata) Setaria pumila (S. glauca)
Phleum pratense ssp. bertolonii (P. bertolonii) Phleum pratense ssp. pratense (P. prater.
Phragmites australis (P. communis) Danthonia decumbens (Sieglingia decumbens)

Otherwise we are allowed to keep our Bromuses and Festucas and Poas and so on!!

G. D. W.

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should be sent to Ernest Daniels,
 41, Brian Avenue, Norwich, Norfolk, NR1 2DP, to arrive not later than October 15th.



THE NORFOLK NATTERJACK

The quarterly bulletin of the Norfolk & Norwich Naturalists' Society

No.7

November, 1984

HARD CHOICES

During the summer a West Country friend was trying to describe to me the taste of roast heron. He is not a vandal, but a fish-breeder and fish-raiser with several acres of ponds which act as magnets to fish-eating birds. They are not deterred by fine netting around the ponds, by a cat's cradle of fine fishing line criss-crossing over the water, by swinging cut-out shapes on long sticks, or by tinkling or banging from a variety of suspended, wind-blown objects. Only the dawn stalk with a shotgun offers the comfort of an illegal and brief respite.

Broadly, it may be said, conservationists seek to maintain life, and faced with decisions about conserving particular areas, would prefer not to interfere: but almost always conservation involves controlling which sometimes also means killing. The bulk of our plant and animal communities are not stable, climax communities, but are some stage in a dynamic succession of stages. If we decide, usually quite arbitrarily, that we wish to sustain some particular rare plant or animal or assemblage of plants and animals, we are at the same time declaring war upon the competitors of, the predators of, the successors to, our chosen protectorate. Taking a part of nature under our wing immediately involves us with many decisions, and to meet these we need accurate and detailed knowledge of the species involved, of their life cycles and of their interrelationships.

We would almost certainly disagree with the priorities of the old type of gamekeeper who, in the interests of his employer's grouse, would treat as 'vermin' the golden eagle, the osprey, the kite, all owls: and we perhaps haven't much time for the fish-breeder who objects to losing £100-worth of koi carp before breakfast and takes the only action that seems effective. But we can't avoid, each time we join the fight to conserve a particular area, the need to define our aims, establish our priorities, and make our decisions: and sometimes some of those will be hard.

G. D. W.

EXCURSION TO BRYANTS HEATH, FELMINGHAM : July 22nd, 1984

About 25 members travelled to Bryants Heath, near North Walsham, on one of the warmer days of the period. For several, this was a first visit to this small S.S.S.I. of 39 acres - an area which has lacked the attention of naturalists in recent years. Prior to 1894 the Heath was owned by the Trustees of the Poor of the Parish. Today the Parish Council are the 'owners' of the area, the land being vested in the Parish Council by virtue of the Local Government Act of 1894.

As the central area is virtually all gorse, members walked the perimeter noting the spread of bracken, almost to the boundaries. However, the bog area was full of interest to many, and four Common Spotted Orchids (*Dactylorhiza fuchsii*) were seen where previously none had been recorded. One similar plant was also found alongside the path in the south of the Heath. Several common butterflies were out in the sunshine during the day while, in the afternoon, one lucky party found a Humming-bird Hawk Moth (*Macroglossum stellatarum*) visiting the honeysuckle blossom.

In years past, Marsh Club Moss (*Lycopodium inundatum*) and Bog Orchid (*Malaxis paludosa*) have been recorded but neither has been found in recent visits. Alec Bull has been more fortunate in discovering two species of bramble new to East Norfolk - namely *Rubus carpinifolius* and *R. arreniiformis* but we shall require his presence to locate these.

Future visits will depend much upon members' individual interests, but any information of species not previously listed will be welcome. Special thanks are due to all who have kindly provided details of their finds; this is greatly appreciated. The summary reads as follows:

Flowering plants	94	Insects	16
(including Grasses	17	Spiders	6
and Rushes & Sedges	6)	Other animals	5
Fern	1	Galls, including causers	18
Mosses	5		
Fungi	14		

K. W. K. Palmer

BRITISH BIRDS MAGAZINE

Enclosed with this issue of 'Natterjack' is a leaflet giving details of current subscription rates to the monthly magazine 'British Birds'. Once again members of the Society qualify for the special concessionary rate of £16.50 per annum. The magazine contains a wide range of articles, notes and illustrations on the birds of Western Europe, and frequently deals with topics of direct interest to Norfolk ornithology. Recent issues have dealt with the identification problems associated with stints and small sandpipers, reed warblers and immature skuas, all accompanied by coloured illustrations.

D. A. D.

BIRD WATCHING EXCURSION : December 9th

The details of this meeting on the Programme Card do not include the meeting time. Please meet at Potter Heigham Church at 10.30 a.m.

C. Neale

NORFOLK YOUNG NATURALISTS' SOCIETY

will meet at the Castle Museum, Norwich, on January 4th, 1985, for a talk by Rex Hancy entitled 'Bugs, Bats and Bitterns : the nature of Norfolk'. From 7.00 p.m. to about 8.30 p.m.; parking provided; refreshments available in the interval. Tickets free from 41, Holcombe Avenue, King's Lynn, or at the door.

Alison Wilmore

SOCIETY MIGRANT

After nearly 16 years as botanist at Norwich Castle Museum, Peter Lambley has departed these shores and has taken up a three-year post at the University of Papua New Guinea. Peter served the Society as museum representative on the Council and, recently, as Editor of the Transactions. He was elected President for 1980-81. We wish Peter and his family every success on their adventure and look forward to some really exciting talks when he returns to Norfolk in a few years' time.

A. G. Irwin

NORFOLK BREEDING BIRD SURVEY 1980-1985

Progress with the above project has been most heartening this year. Sincere thanks are due to all those who have undertaken field-work: to those who have not yet sent in their cards and, hopefully, casuals, please let me have them as soon as possible. Of the 1455 Norfolk tetrads, results are on file from 1109 (on 12th October, 1984). Plans are already being made to ensure that undercovered and, especially, uncovered tetrads will be visited at least once in 1985. As Britain's leading county for birds, Norfolk's Atlas, once prepared and published, must not be seen to be inferior to those comparable ones that are already in print.

All existing workers, as well as volunteers who come forward in the meantime, will be contacted early in 1985. Furthermore, as director of the project, I intend to be present at the public exhibition meeting to be held in the Ivory Room at the Assembly House, Norwich, on February 16th next. Survey data will be displayed, and I hope to meet as many of you who have worked for the project as possible there. Don't forget to contact me, c/o the Natural History Department, Castle Museum, Norwich, NR1 3JU. My home telephone number is Norwich 898646.

Geoffrey Kelly.

SOME BYGONE NORFOLK NATURALISTS - 5

Charles & James Paget (1811-1844 : 1814-1899)

This year sees the 150th anniversary of the publication of 'Sketch of the Natural History of Yarmouth and its Neighbourhood'. Its appearance, towards the end of 1834, heralded one of the first of the local faunas which became such a feature of the last century. Of its authors, much is known about James Paget, the eminent physician who became sergeant-surgeon to Queen Victoria, but little is recorded of Charles' life.

The two brothers went to school in Gt. Yarmouth. Their father, Samuel, one-time Mayor of the borough and successful brewer, had amassed a considerable library including Smith and Sowerby's 'English Botany' and Dawson Turner's 'Historia Fucorum'. Their mother was a skilful writer and painter and an avid collector of natural objects, especially sea-shells and corals. With parents eager to promote an interest in these things, and a circle of friends which included a number of prominent county naturalists, every opportunity was thus presented to the two brothers to pursue a study of natural history. Early on we find Charles collecting plants and insects, and his brother collecting algae, on the beach, and plants on the Yarmouth Denes and salt-marshes "chiefly on Saturday afternoons, and on casually unoccupied bits of days, and often before breakfast...".

Soon Charles specialised in insects. His initial sorties gathered some 750 species from the area and he began corresponding with the leading naturalists of his day. Meanwhile, James was being guided in botany by the bryologist Thomas Palgrave, a nephew of Dawson Turner. Through him he was introduced to William Hooker and other leading Norfolk naturalists. An abortive plan to enter the navy launched James, instead, on a medical career, and before he left for London he served an apprenticeship with a local practitioner, Charles Costerton. This 4½ years of training in Yarmouth gave him ample time for study. He exchanged coastal plants with inland collectors and built up a nearly complete herbarium of the flora of the district.

The culmination of the two brothers' efforts was the 'Sketch'. The book is some 120 pages long and includes lists of birds, mammals, reptiles, fish, flowering and non-flowering plants, and insects, found within a radius of some ten miles of Yarmouth. An introduction gives a fascinating view of the varied habitats around the old town. Also described is the activities of wildfowling and bird-dealers whose livelihood was provided by the abundant life found there, and the local naturalists who studied it. Small though it may be, the 'Sketch' is a valuable record of the status and distribution of Norfolk wild-life 150 years ago.

James left for London shortly after its publication. Charles remained in Yarmouth pursuing his entomological studies while endeavouring, unsuccessfully, to save the family's ailing business interests. All the insects listed in the 'Sketch' - 766 species - were provided by him, and to these he later added a further 100. In the year after the 'Sketch' his friend, John Curtis, honoured his name with a new species, *Agrypnia pagetarus*, the 'Yarmouth Grammon' or May-fly. But Charles' health was not strong. He had been an invalid from the age of 13, and the strain of business contributed to his untimely death in March, 1844.

His brother's career is well-known. Though rising to eminence, James retained his interest in natural history, becoming friends with Darwin and pursuing some studies in plant pathology, galls and parasites. He never forgot the 'Sketch' and its "priceless" preparation for his later life.

Michael Bean

NORFOLK REPTILES AND AMPHIBIANS

The report on Norfolk reptiles and amphibians recorded over the last ten years will soon be written up and members are urged to send in their records as soon as possible. It is hoped that all members might be able to send in some records: brief annotated species lists for areas well known to the observer would also be most useful. Records to me, c/o Natural History Dept., Castle Museum, Norwich, Norfolk.

John Buckley

EXHIBITION MEETING : February 16th, 1985

With this issue of 'Natterjack' is enclosed a poster advertising an item not in the current programme. This is a public Exhibition Meeting to be held in the Ivory Room at the Assembly House, Norwich, on Saturday, February 16th, 1985, from 10.30 a.m. to 4.30 p.m. Could you please arrange to display the notice on your local notice board, whether it be in a library, a parish notice-board or just in your local grocer's shop window. Thank you.

Alec Bull

(We are sending the posters out with this issue, although rather early, since the next issue will be too late. Members will have to decide on the most appropriate time to display posters in relation to a meeting in mid-February. Ed.)

PHOTOGRAPHIC GROUP

Summer 1984 proved to be one of variable weather and mixed fortunes as far as our Photographic Group was concerned. Cuttings to Bradfield Woods, Strumpshaw Fen, Hockham Woods and East Wretham Reserve attracted only a small number of enthusiasts, two only on August 26th to the last named, due no doubt to the fact that August is the traditional holiday month. Autumn got off to a good start, however, with 30 members turning up for what proved to be a most interesting evening at Jarrolds Printing Works, where we were treated to an introductory lecture on modern photographic techniques as applied to the printing trade, and were then escorted by our lecturer, Mr Dennis Avon (Works Photographer and author of a number of photographic books) around the Photographic Section of the works where he showed at first hand the machines in use, and work in progress.

The matter of venue for future meetings has received consideration over the past few months (with the removal of the School of Education from Keswick Hall to a new building on University Plain) and it has been decided that we could not do better than to hold them in the Assembly House in the city. It has the advantage of being central, with its own car park -- free to members attending meetings in the building -- and the cost of hiring is not prohibitive. With this in mind, firm bookings have been made and a Winter Programme has been drawn up following the pattern that appeared to meet with approval last year, i.e. a short 10-15 minute

talk to photographic beginners, followed by the main lecture of the evening at about one hour, the remainder of the evening to be occupied with the showing of members' own slides (a suggested maximum of five slides per member) to fill in as far as possible any time we have at our disposal. Please do give these meetings your support; better still, bring with you any acquaintance or work colleague interested in photography and introduce them to the N.N.N.S. and to our group in particular. We will make them welcome.

Finally, any suggestions as to how the Group's activities could be improved or expanded will be appreciated -- to me, please; I can assure you they will receive careful consideration..

Bob Robinson

NORFOLK AND NORWICH NATURALISTS' SOCIETY -- PHOTOGRAPHIC GROUP -- PROGRAMME

Thursday, November 22nd, 1984 - 7.30 p.m. - Edmund Bacon Room, Assembly House

Mr. Paul Banham - 'Nature Photography - France & California'

December, 1984 - No meeting

Wednesday, January 16th, 1985 - 7.30 p.m. - Kent Room, Assembly House

Dr. Geoffrey Watts - 'Pathways to Close-Up Photography'

Wednesday, February 6th, 1985 - 7.30 p.m. - Lecture Theatre, Central Library

Group lecture to Main Society - 'Colour in Nature'

(N.B. It would be appreciated if members, wishing to have slides considered for inclusion in this lecture, could bring them along to the December 12th or January 5th main Society meetings: I will gratefully receive and take care of them.)

Monday, March 11th, 1985 - 7.30 p.m. - Edmund Bacon Room, Assembly House

Mr. Norman Carmichael - 'Some Approaches to Natural History Photography'

Thursday, April 25th, 1985 - 7.30 p.m. - Kent Room, Assembly House

Mr. Rex Hancy - 'A Miscellany of Nature Photographs'

Keep shooting in the winter months ahead!

Bob Robinson

EDITOR OF THE TRANSACTIONS

At the last meeting of the Council of the Society, on the 24th of September, 1984, the resignation of Peter Lambley from his position as Editor of the Transactions was considered. After some discussion of the conditions of the appointment, nominations were called for. Dr. Tony Irwin, Entomologist at the Castle Museum, was proposed by Roy Baker and seconded by Rex Hancy and, in the absence of other nominations, the Council unanimously agreed to invite Dr. Irwin to accept the Editorship. He has subsequently accepted the appointment with thanks.

G. D. W., Chairman.

CONTRIBUTIONS TO THE TRANSACTIONS

Could I please have papers to be considered for inclusion in next year's Transactions, together with notes and other contributions, by the end of the year? To me, at the Natural History Department, Castle Museum, Norwich. Norfolk, NR1 3JU, please.

Tony Irwin

CONSERVING NORFOLK ROADSIDE VERGES

We are moving slowly ahead. The County Surveyor is discussing with Divisional Surveyors ways of dealing with interesting verges, and in particular lines of communication between our voluntary wardens and the people actually responsible for verge cutting and maintenance. The County Planning Officer has said that he may well be able to help with the supply of markers, and has expressed a general interest in, and support of, any scheme leading to better management of roadsides for wildlife.

You may remember that I listed about 50 of the best verges identified by Alec Bull's volunteers in the mid-70's in 'Natterjack' 5, and in the last issue I was able to report that 22 of those had been taken up by members willing to keep half an eye on particular stretches. Given that response I thought it worthwhile to list the positions of the other sites to see what further help we can get within the Society, before asking around beyond it. The sites already spoken for are not included.

N.W. Norfolk (O.S. 100 km. square TF) - Tottenhill, Castle Rising, Babingley, Heacham, Ringstead, E. Winch, Sedgeford, Shernborne, Fring, Barton Bendish, Thornham, Anmer, Harpley, Docking, Titchwell, Tittleshall, Beeston, W. Bradenham, Wells, E. Bradenham, Mileham, Hindringham, N. Elmham, Hoe;

N.E. Norfolk (O.S. 100 km. square TG) - Morston, Reymerston, Billingsford, Twyford, N. Tuddenham, Elsing, Thurning, Hookering, Hunworth, Welborne, E. Tuddenham, Corpusty, Wymondham, Oulton, Itteringham, Swannington, Haveringham, Blickling, Aldborough, Colney, Calthorpe, Drayton, Horsford, Beeston, Stoke Holy Cross, Rackheath, Framingham Earl, Bradfield, N. Walsham, Trunch, Wroxham, Worstead, Edingthorpe, Hellington, Witton, Honing, Crostwight, Dilham, Stalham, Brumstead;

S.W. Norfolk (O.S. 100 km. square TL) - Cranwich, Foulde, Didlington, Santon Downham, Thetford, Croxton, Merton, Bridgham, Rockland;

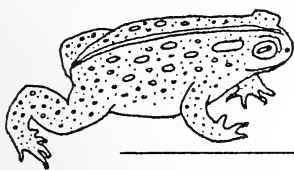
S.E. Norfolk (O.S. 100 km. square TM) - Hindolveston, Morley St. Botolph, Carleton Rode Shelfanger, Burston, Tivetshall, Shimpling, Dickleburgh, Flordon, Wacton, Fulham Market, Fulham St. Mary, Colegate End, Morningthorpe, Shelton, Needham, Hardwick, Shotesham, Saxlingham, Redenhall, Poringland, Topcroft, Woodton, Howe, Bedingham, Earsham, Hedenham, Thurton, Mundham, Ditchingham, Thwaite, Loddon, Ellingham, Kirby Cane, Hales, Geldeston, Gillingham, Haddiscoe.

If one or more of these sites is near to you, or an area through which you regularly travel, I would be happy to sign you up as an honorary warden of one or more of these verges. Please write to me at Barn Meadow, Frost's Lane, Gt. Moulton, Norwich, Norfolk, NR15 2HG.

G. D. Watts

CONTRIBUTIONS TO THE NEXT NATTERJACK

should be sent to Ernest Daniels,
41, Brian Avenue, Norwich, Norfolk, to arrive not later than January 15th, 1985



THE NORFOLK NATTERJACK

The quarterly bulletin of the Norfolk & Norwich Naturalists' Society

No.8

February, 1985

MAKING AND SUPPORTING HYPOTHESES

Unlike historians, scientists are not concerned with unique events. A single sighting of a pattern of feeding behaviour by a bird, or a plant species growing in a particular place, or flowering at a particular time, or an insect attacking a particular prey, or any one of a thousand other observations, all remain anecdotal -- narratives of detached incidents -- until they are supported and buttressed and strengthened by other sightings of the same phenomenon. Several things follow from this for committed naturalists.

First, as Ted Ellis never tires of telling us, we need to make records so that data can be collected and fixed and stored, insulated from the waywardness of memory. So we need dates and times and places and species and things. Second, we need to put our observations in a form which can be added together with other observations, either more of ours or of somebody else, and so we shall probably need to count things or measure things or weigh things in some agreed way. Third, unless we like secret research entirely for our own satisfaction, we need to let our results be known, by talking to others of like interests, or giving a lecture illustrated with slides, or publishing in journals like our own Transactions.

Thus we can start by making observations, as Mr. Cambridge does in the article which follows, and we can work on it by gathering and recording our own information about rabbit burrows or marks on chalk, and so contribute to a gathering heap of information which will either confirm and establish (or fail to confirm and establish) those first ideas.

We are naturalists because we are interested in plants and animals, so we like to know the names of things and where they live and how they get on together. There are not many professional ecologists, and most of them are finding out more and more about less and less, so much of the work remains to be tackled by amateurs. How about your own special research project for 1985? There is lots of advice available for the asking round the Society: lots of experts, and quite a few used to research. Try it!

G. D. W.

OBSERVATIONS ON RABBITS

Although primarily a palaeontologist, the writer takes a general interest in natural history and the following observations were made while on visits to geological sites in East Anglia. In themselves the behaviours noted may be isolated examples of behaviour of individuals or warrens, but they do suggest that further observation might be very worth while.

first to see if the behaviour is widespread and second to see if a reason can be found.

Burrow entrances - In 1976 a small group of burrows in the middle of a more or less flat field near Sudbourne Church, Suffolk (TM.417519), was examined to see what was being thrown up, as such burrows are often a useful way of noting the presence of shelly Crag sand near the surface. There was an unusual feature about the burrow entrances. Obviously on a flat surface a burrow has to start with a 'cutting' similar to the entrance to a railway tunnel. In this case all 'cuttings' curved sharply away from the entrance about 90° and all turned to the right as you faced the burrow. The immediate question was 'Why?'.

A hypothesis, after thought, was that this was linked to the fact that the burrow systems were fairly new and on a level surface. In most cases my memory suggested that rabbit burrows are in hedges or slopes and the excavated material is thrown straight out to spread by gravity below the burrow. Alternatively, old warrens are often hummocky and irregular from constant excavation, or scattered among trees and bushes. In the case of a flat field there is an 'engineering' advantage in the curve. Wind or heavy rain will not wash the excavated material back into the burrow so easily - an important fact when the holes are in light sands.

A hypothesis always needs to be tested and this has not yet been done. Perhaps some members might like to test this by looking at rabbit burrows in their area, especially those on level surfaces with light soils. Is the curve a common practice or an isolated occurrence? The question can easily be answered by mere observation. Finally, is the curve made for the reason I have suggested and if so why were they all in one direction? Does the direction vary from group to group? Is it always constant in a warren?

Gnawing chalk - While looking at a vertical section of chalk in an old pit near Snettisham in 1982, I noticed an unusual appearance of the chalk face; a kind of striation. Closer examination with a lens showed that it was not a geological feature. The markings always occurred about 8 to 10 inches from the base of the section or just above flat ledges, and looked like gnawings by something about the size of a rabbit which was confirmed by the shape of the grooves. This behaviour does not seem to be recorded and again it opens a possibility for individual observation. Does the behaviour occur elsewhere in chalk pits? Or is it local? As to 'Why?', two hypotheses occur to me: first, that it is simply a 'tooth-sharpening' exercise, perhaps because of an abundance of soft food; or that it has some dietary significance. It is hard to see why calcium should be needed in an area certainly not deficient in this mineral. Perhaps it may form a kind of antidote allowing the animals to eat some plant normally having an adverse effect. As an example, while rabbit keeping during the war I read a book which stated that rhubarb leaves should not be fed to rabbits unless they were first dusted with lime, presumably because they contain oxalic acid which was thought to be changed chemically by the lime. In chalky areas lime dust would settle over leaves near a chalk pit, or alongside tracks ground by wheels, and perhaps local rabbits have discovered that some plants, normally deleterious to health, were palatable under these conditions, and then went on deliberately to add chalk to their diet.

Summary - These two cases show firstly simple observation and then hypothesis building. The next stage is investigation as to the range of the variation and its causes. They also show that anyone with a sense of observation can add to knowledge on the behaviour of animals, even on the most common ones, and this can be a very rewarding field of natural history.

P. Cambridge, 258 Bluebell Road, Norwich.

ROADSIDE VERGES

My thanks to those who have written in with offers of help: I will be getting in touch within the next few weeks. Meanwhile, more offers welcomed in some parts of the county. Full list in the November issue of 'Natterjack'.

G. D. W.

Sir Thomas Browne (1605-1682)

Unlike the previous subjects in this series, Sir Thomas Browne was a Norfolk man by adoption. He was born in London and educated at Winchester and Oxford. After taking his M.D. at Leiden in 1633, he practised at Shibden Hall, near Halifax, and settled in Norwich in 1637. Alongside his medical profession Browne also pursued a literary career which included religious and antiquarian works. But perhaps his most celebrated book was the 'Pseudoxia Epidemica', often known as his 'Vulgar Errors' in which he tried to correct some popular beliefs and superstitions.

Browne's world seems to us to have been an intellectually backward one. Views on the natural world were antiquated. Aristotle was, after all, still the authority. However, it was also an age that saw the early application of the microscope by Robert Hooke. Nehemiah Grew and van Leeuwenhoek; Harvey's discovery of the circulation of the blood and, despite the crude systems of classification which prevailed, the early attempts of men like Ray and Willoughby to bring some organisation to the chaos. So Browne, who hated this adherence to out-dated tradition, sought to dispel mythical creatures like the basilisk, griffin and phoenix, and views such as that the chameleon could live purely upon air. But he also included descriptions from his own observations, e.g. the rearing of frogs from spawn.

He made many friendships and his help was sought by some of the most celebrated figures of the time -- Sir William Dugdale, John Evelyn, Christopher Merrett and John Ray. To them he submitted his observations and ideas, founded on a degree of clarity and originality rare for his time. Out of the observations of the birds of his adopted county came the belief that some species migrated, coming from the south in spring and arriving from the north in autumn and winter. One hundred years later Gilbert White was still struggling over this difficult concept.

Browne's natural history notes of Norfolk are fascinating. Early breeding records are given. We are told that cranes once bred in the county and that spoonbills once built their nests at the tops of trees at Reedham. Kites were frequently met with, as too were ravens, especially around Norwich. Browne tells of a contemporary taste for black-headed gull eggs (for puddings) and the belief that rooks' livers cured rickets. Also in these notes is found the first recorded occurrence in Britain of the roller (May 14th, 1664).

In his description of sea mammals we find early records of cetaceans and seals, and note with interest Browne's observation of a common seal shot in the river at Surlingham. Fishes and other water-life are also dealt with and the reader is urged to study the excellent collection of these notes as edited by Thomas Southwell (Jarrold, 1902).

Browne's contribution to the medical and religious worlds was recognised when Charles II knighted him on a visit to Norwich in 1671. He died in 1682, on his birthday, and his body lies buried in St. Peter Mancroft church.

Michael Bean

BRITISH BUTTERFLY CONSERVATION SOCIETY'S PURPLE HAIRSTREAK SURVEY, 1985

This year the Norfolk Branch of the B.B.C.S. will be trying to find out a great deal more about the status and haunts of one of our county's more overlooked butterflies - the Purple Hairstreak. I am currently plotting on a tetrad map of Norfolk the known distribution of this species, but at present I have complete knowledge only to the immediate south and west of Norwich, and to

some extent in Breckland and near the North Norfolk coast, around Cromer. I should therefore like to make an appeal through 'Natterjack' for N.N.N.S. members to provide me with information concerning its existence elsewhere, especially in Mid-Norfolk, East Norfolk and the Fens.

The Purple Hairstreak will be seen usually flying above the crowns of oak and ash trees, in woodland and by its edges, in well-timbered parkland and along hedgerows where trees are frequent. Look from mid-July to early September depending on the season; the early evening seems to be the best time to observe it. Details needed are a four-figure grid reference and or parish name; some details of the habitat; date(s) seen and numbers. Further information from:

Stuart Paston, 14, St. Michael's View, Flordon, Norwich, NR15 1RR

EXCURSIONS -- SPRING AND EARLY SUMMER, 1985

(Please note that your Programme Card runs out with the A.G.M. on March 22nd, and that you will not receive a new card until the next mailing in mid-May. The following notices, therefore, may be the only notice members will receive of these meetings.)

Sunday, April 21st - Excursion to STRUMPSHAW FEN R.S.P.B. Reserve for Spring birds. Meet 11.00 hours in car park (TG 341066). R.S.P.B. members free; non-members £1 each. You will be free to wander or to join an organised group. Picnic lunch. Rubber boots. Leader: Mr. M. Blackburn.

Sunday, May 5th - S.N.T.C. Open Day at BOUNDARY FARM, FRAMSDEN for fritillaries.
11.00 - 16.00 hours. (TL 187606)

Sunday, May 12th - Excursion to CARLTON MARSHES, CARLTON COLVILLE, for Spring flora. Meet 11.00 hours at TM 505918. Access off A.146 into Burnt Lane. Cross railway (hoot for keeper) and continue for 200 yards. Picnic lunch. Tubber boots. Leader: Mr. R. Briggs.

Sunday, May 19th - Excursion to SANTON DOWNHAM - St. Helen's Well picnic site (TL 827874) for Spring flora (Joint meeting with Thetford Naturalists' Society).
Leader: Mr. A. Bull.

Wednesday, May 22nd - Evening excursion to view wild flora of NORWICH. Meet
19.00 hours by Robinson Volkswagen Centre, Heigham Street (TG 222094)
Leader: Mr. C. Dack

Wednesday, May 29th - Evening excursion to grounds of BERRY HALL FARM, HONINGHAM, for pond dipping (by kind permission of Mr. R.W. Meynell). Meet 19.00 hours at entrance to lane leading to farm (TG 096120).

Sunday, June 2nd - Excursion to DENVER. Meet Denver Sluice Car Park at 11.00 hours. Picnic lunch. Rubber boots. Leader: Mr. C. Dack (TF 590012)

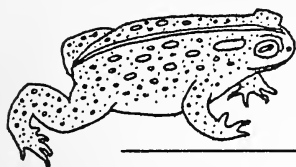
Sunday, June 9th - Excursion to GOG MAGOG (for perennial flax) and CHERRYHINTON
CHALK PIT, CAMBRIDGE. Meet 11.00 hours at TL 493547. Picnic lunch.
Leader Mrs. M. Meade.

Sunday, June 23rd - Excursion to HORSEY for Mere and Dunes. Meet 11.00 hours at Horsey Mill Car Park. Picnic Lunch. Rubber Boots. Leader: Mr. J. Burton.

CONTRIBUTIONS TO THE NEXT NATTERJACK

41, Brian Avenue, Norwich, Norfolk, to arrive not later than April 15th, 1985.

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THE NORFOLK
NATTERJACK

28 MAY 1985
EXCHANGE
GFM-3A

The quarterly bulletin of the Norfolk & Norwich Naturalists' Society

No.9

May, 1985

A FORETASTE OF SUMMER

April in the Aegean Islands offers the naturalist a blend of unfamiliar species together with familiar species behaving unfamilarly. On the one hand there is no doubt that these are foreign parts: olive groves carpeted with bermuda buttercups; dry stony slopes covered with the dwarf scrub vegetation of the garrigue, bright with rock roses, asphodels, flowering sages and other herbs, and with lizards slipping away out of sight, and large butterflies and brilliantly coloured beetles; open patchy evergreen woods with wild peonies and cyclamen growing under strange pines.

On the other hand there are many northern european species behaving as if it was the northern european summer. The popular beaches, for instance, are set out with neat ranks of oiled bodies - primarily British, German and Scandinavian - engaged in a controlled grilling treatment. At the top of the beach you may find the sea rocket and the horned poppy already in full bloom, and the sea holly and the prickly saltwort are far advanced. In the fields behind the beach poppies and charlock riot, and grassy banks bear mallow and bindweed and many familiar flowering grasses. House martins are busy with their nesting, and a faraway cuckoo sings for most of the day.

However, the rains have largely ceased, and the burst of colour will be short-lived. The annuals will soon seed and die down, and the leaves of the perennials will become grey and shrivelled. Here the summer will be harsh and burning, while the flowering of summer will move steadily northwards. It should be with us here any time at all. Kalo kalokairi! (Have a good summer!).

G. D. W.

A NORFOLK CROCODILE! (Joint meeting with R.S.P.B. - Norwich Members' Group)

Sunday, December 9th, saw 40-50 people assemble at Potter Heigham church for a pleasant, roughly circular walk through farmland, rough grazing, reed bed and woodland habitats. The day was mostly dry and sunny. Birds were scarce to begin with, but spottings improved later on with good views of a stonechat using a barbed wire fence and post as a lookout for food; a herd of at least 20 mute swans; numerous cormorants and wildfowl; and to round off the walk, views of bittern and marsh harrier in flight.

We were told by a butterfly expert that the oak trees are good places to spot purple hairstreak butterflies in their season, and several different species of fungi were seen in the woodland. The members with me towards the walk's end all admired a new bridge over a dyke with its Broads Authority dragonfly logo branded into each end of the hand-rail.

C. Neale

COVEHITHE & WALBERSWICK

On Sunday, February 3rd, 21 Society members met at Covehithe church for a walk to Benacre Broad and the pits near Kessingland levels to see what birds were about following the new year's first freeze-up. The walk started in sunshine but it soon turned cloudy with a little rain although not enough to curtail the birding. As we walked north along the cliff-top we were amazed at the speed of erosion that had taken place. When I first visited Covehithe there was still the bungalow on the cliff-top with its seaward garden and beyond that concrete slabs from wartime emplacements. Now the bungalow has gone down to the beach along with all its landward garden. The fine stand of oak trees that I first knew by the Broad have mostly been cut down, killed by salt water during the gales of the late 1970's.

We could see, albeit quite distant, several species of wildfowl on the Broad - mallard, wigeon, shoveler, pochard, mergansers diving, goldeneye and Canada geese. Two female marsh harriers were seen against the background of distant trees.

The walk further north to the old gravel pits was rewarded by very close views between dives for food of female goldeneye, female scaup, and for some the best bird of the day, a black-throated diver. They all seemed quite oblivious of our presence, silhouetted as we must have been for them against the grey sky. Oystercatchers, ringed plover and redshank were seen on the seaward ridge of shingle.

After lunch a smaller number of us assembled at Hoist Covert car park in the Walberswick National Nature Reserve, an area of saltings, rough grazing, extensive reed bed, woodland and heathland. On the way down to the reed bed we were thrilled by the antics of a 12-strong party of long-tailed tits. The walk along the rather muddy bank between the reed bed sections added six mute swan cygnets still in their off-white juvenile plumage, 'sailing' along a dyke, and excellent views of a hunting short-eared owl with its long wings and plumage of several shades of brown and gold.

After a while on the beach to look for stones suitable for jewellery, even fewer of us went to Westwood Lodge to see both male and 'ringtail' hen-harriers hunt over the reeds in the gathering gloom before they settled down to roost for the night.

C. Neale.

NORFOLK BEETLE RECORDS

If any members have records of beetles from Norfolk, I would be very interested to receive relevant details, e.g. locality, date, etc. This information will be used in the updating of the county list which is currently being undertaken, the preliminary results of which will hopefully appear in the Transactions during the next few years.

Martin Collier, 67 Church Lane, Homersfield, Harleston, IP20 0EU

COPIES OF PUBLICATIONS WANTED

1. Wanted - back copies (pre-1981) of the Transactions of the Norfolk and Norwich Naturalists' Society, Transactions of the Suffolk Naturalists' Society, or any entomological journals.

(Martin Collier, 67 Church Lane, Homersfield, Harleston, IP20 0EU)

2. Do any members of the Society have spare copies of the 1960 and 1962 'Norfolk Bird and Mammal Reports' which they would be willing to part with. I have a continuous run from 1963 and recently obtained a 1961 copy. With the addition of the 1960 and 1962 reports I would have an unbroken run of 25 years which would virtually start with my own recordings of natural history in Norfolk.

(Francis Farrow, The Garth, 7 Common Lane, Sheringham, Norfolk, NR26 8PL)

3. Since the call is going out for Transactions, I may as well put in a bid for some very early parts - 1870-71 (Vol. 1, Part 2), 1874-75 (Vol. 2, Part 1), 1875-76 (Vol. 2, Part 2), 1877-78 (Vol. 2, Part 4) - to complete my run across 116 years. In 20 years of scouring second-hand bookshops, rootling through boxes of old books at auctions, searching sale lists, these have escaped me, but they just might be around tied up with string in somebody's attic.

(Geoffrey Watts, Barn Meadow, Frost's Lane, Gt. Moulton, Norwich, NR15 2HG)

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SOME BYGONE NORFOLK NATURALISTS - 7

Rev. Richard Lubbock (1798 - 1876)

The study of natural history in our county has had many champions. Of those individuals who have carried on this great tradition must be mentioned the clergy, examples of whom have contributed to nearly all branches of the science. The Rev. Richard Lubbock was both typical of his class and also extraordinary in his contribution to this study.

Born in 1798, the eldest child of Dr. Richard Lubbock, physician of Norwich, he was sent to school in Chiswick and then on to Pembroke Hall in Cambridge where he gained his B.A. in 1824. The following year he received his M.A. and became ordained. Soon after ordination Lubbock obtained a curacy at Downham and then at Hellington, Rockland and Bramerton. A curate's life in the Norfolk countryside gave him much opportunity to pursue his boyhood interests in natural history. When a youngster he enjoyed nature study and shooting (pastimes which, in those days, often went hand in hand) and doubtless learned much from his uncle, J. Postle of Colney Hall, who had a noted collection of stuffed birds and other objects.

But he not only frequented Norfolk's wilder areas, for he spent holidays shooting and fishing in Wales, the Scottish highlands and on the continent, often in the company of the gifted Yarmouth naturalist and sportsman Charles Girdlestone (Girdlestone died lamentably young). As a result of these travels many friendships were formed - not just among the upper or middle classes, but among labouring folk, too - and these connections provided him with records and specimens for inspection. The names of John Kerrison of Ranworth, Rev. W. Kirby, John Henry Gurney, Dawson Turner, Henry Stevenson and William Yarrell are frequently linked with Lubbock's. Indeed, Yarrell was grateful for his assistance in the production of the classic 'British Fishes' (1836) and 'British Birds' (1837).

In 1831 Lubbock was elected a member of the committee of Norwich Museum and began lecturing to city audiences in 1835. Four years later he was appointed an honorary curator of vertebrate animals.

His career in the church took a decisive turn in 1837 when he became rector of Eccles, near Attleborough. Here he stayed for 39 years, until his death, and here he worked on the one book for which generations of naturalists have remained most grateful - 'The Fauna of Norfolk'. Published in 1845 it contained the basic stuff of his museum lectures. Lubbock describes the county's mammals, birds (with strong emphasis on the water birds), river fish, and has short notes on its reptiles and amphibians, sea fish, insects and plant life. In addition there are sections on decoys and hawking (the latter by Alred Newton).

To the late twentieth century naturalist the content is riveting, for not only is Lubbock's treatment of the subject detailed, it is also prophetic. His warnings against the senseless persecution of species of hawks echo across the years and a note in the preface brings a chill "so much alteration may be looked for in a few years, that some species now remaining in our marshes will be speedily extinct."

Michael Bean.

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FURTHER THOUGHTS ON HERONS AND FISH-PONDS

I was interested to read Geoff Watts' Editorial in the November 1984 'Norfolk Natterjack' on the theme of 'Hard Choices'. The crux of the article was that conservationists have to make difficult decisions when fighting to conserve a habitat or a species.

I would agree that this is sometimes the case. As it happens, it seems to me that most choices in this respect are reasonably straightforward be it in habitat management, (for example the control of invading scrub in a fen or on a chalk grassland), or in predator control, as in the need to trap mink where they threaten important ground-nesting birds. The hardest choices are in deciding where to apply the limited resources of conservation; should it be on land purchase, to safeguard a site forever, or on employing professional staff to win the hearts and minds of landowners over a far greater area?

My main reason for writing, however, was to make some observations on the example used, of the fish-breeder who decided to shoot a heron (illegally) to protect his fish, as he saw it. The problem of herons and fish-farms is one that the Royal Society for the Protection of Birds has been aware of for many years. Our response was to employ a research biologist, Julie Meyer, to do a two-year study of the problem, in order to come up with some constructive solutions. The results of her work were published in 'Fish Farmer' in July, 1981, and a reprint of her article is available from this office. In summary, she discovered that, in most circumstances, herons could be fairly easily deterred by fixing two strands of twine all round the fish pond banks at 8" and 14" above the ground. With the twine at this height, the herons are reluctant to step over it or under it. The R.S.P.B. can now offer an advisory service to fish farmers who have problems with herons, to discuss this and other means towards ensuring that herons and fish farms can co-exist reasonably, if not exactly live together happily ever after. This service has been very much welcomed by the Ministry of Agriculture, Fisheries and Food, who have been most reluctant in this region to issue the necessary licences to shoot herons on fish farms.

Committing some of the Society's scarce resources to this area of work was a hard choice. But the style of the approach - careful research, then publication of and publicity for the findings - seems to be the best way forward with many conservation dilemmas.

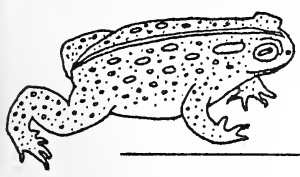
(Letter from Chris Durdin, Assistant Regional Officer, R.S.P.B., East Anglia Office, Aldwych House, Bethel Street, Norwich, NR2 1NR.)

(Letters from members about items in
Natterjack or Society matters or
natural history bits and pieces
would be very welcome (particularly when
there is a little space like this
to be filled with something timeless
or amusing or notable...)
How about some brief notes
or comments?)

CONTRIBUTIONS TO THE NEXT NATTERJACK

should be sent to Ernest Daniels, 41 Brian Avenue, Norwich, Norfolk, NR1 2DP, to arrive not later than July 15th, 1985.

BRITISH MUSEUM
(NATURAL HISTORY)
28 AUG 1985



THE NORFOLK NATTERJACK

The quarterly bulletin of the Norfolk & Norwich Naturalists' Society

No.10

August, 1985

MANY DIMENSIONS

What image comes immediately to mind when the Society is mentioned? Some might think of a score of members in some sun-drenched woodland glade or Broadland meadow or Breckland heath: others might recall two or three score of members ranked in the Library Lecture Theatre anticipating an illustrated lecture: a few might envisage meetings of Committee or Council in the Assembly Rooms or Museum, wrestling with administration: but only those with a feeling for the abstract might try to picture a body of over 500 members scattered through the land and held together only through the post. There is a sense, I suppose, in which the Society exists in all sorts of contexts, such as a small group meeting for Society purposes (a case of where two or three are gathered in the name of the Society, there the Society is), or a letter to the newspaper over the Society name, or a Society poster advertising an event, or just a comment made by one person to another: the Society is in each of these things and is made up of all of these things.

In reviewing the first year of the Society, Joseph Crompton, the first President, said in 1870, "We have not only met with valuable specimens of natural history, but have discovered or made new friends, because we have stirred up a common interest in the beautiful works which are our study." It was a passing comment, but it underlined that the business of the Society is not only a concern for natural history, but a concern shared with other similarly concerned people. Anyone can be a student of natural history, but it takes more than one to be a society. When that society becomes rather more than a score of comfortable and familiar colleagues meeting every week or two -- when it becomes hundreds of separated members, mostly strangers except that they share common aims -- then a new administrative dimension appears; the formal business of making arrangements for people at meetings or excursions or for publications or mailings or money, or for sorting out who does what and how and when.

After the last meeting of Council there was some grumbling that the agenda had involved much administration but little natural history. In a sense this is the price for coming of age: in a large society the executive is inescapably concerned with the overall dimension, i.e. with planning and organising matters for the totality of the membership. Only when this is shipshape can there be time for less tedious pursuits.

G. D. W.

PONDWEEDS & PILLWORT

The Botanical Society of the British Isles is currently preparing a Handbook of Pondweeds (Potamogeton) and their allies, and will be accepting records for this made during the 1985 season. Records are particularly wanted for the following species which are known to occur in East Norfolk: Potamogeton acutifolius, P. coloratus, P. compressus, P. friesii, P. praelongus,

P. x salicifolius (P. lucens x P. perfoliatus), P. trichoides, P. x zizii (P. gramineus x lucens), P. x grovesii (P. pusillus x trichoides), P. x pseudofriesii (P. acutifolius x friesii).

As the Broads area is the most important in the country for the majority of pondweeds, it is hoped that botanists finding any of the above will send their records in, as many sites have been lost in recent years and the exact distribution of the various species is not now known, though most must be less widespread than formerly. Anyone with doubtful material should send it to Dr. N. Holmes, Old Red Brick House, Alconbury, HUNTINGDON, Cambs., if they are reasonably certain that it is one of the above. All records to me, please, giving date, location, habitat (e.g. ditch) and grid reference.

While you are looking for pondweeds, it is perhaps worth mentioning that Clive Jermy is also doing a survey on the distribution, ecology and possible conservation of the Pillwort (Pilularia globulifera) in Britain, and has sent me a list of 11 east Norfolk sites where the species was formerly found. Apart from Horsford (Dr. E.A.Ellis, 1951) and Eastfield, nr. Hickling (N.Y.Sandwith, 1926), the records are all from the 19th century, with those from Westwick and Stratton Strawless both dating from 1805 (though the latter site was still extant in 1866). The other sites mentioned are Hainford Heath, Newton St. Faiths, Horstead, Witton, Horning, Ridlington, Filby and Gt. Yarmouth. It might be worthwhile looking for suitable pillwort habitats in at least some of the above places. It should be sought on the margin of shallow pools where it is flooded in winter but is semi-dry in summer, and appears similar to very new and bright green turf, three or four inches high, with the spore receptacles about the size of peppercorns borne at the bases of the leaves. Again, any records to me, please.

Alec Bull, Hillcrest, East Tuddenham, DEREHAM, NR20 3JJ - Vice County Recorder,
East Norfolk.

OUTING TO HORSEY - June 23rd, 1985

Approximately 30 members enjoyed an excursion to Horsey, rain giving way to clearer skies and even some sunshine early on. A bonus to the escorted walk around the marshes of John Buxton's estate was the boat trip he kindly arranged. Small groups took it in turns to visit the Mere where, as well as the usual mallard -- little tern, common tern, great crested grebe, reed bunting, reed warbler, bearded tit and bittern were seen. Over the marshes a female hen harrier traversed her territory, a snipe was drumming, kestrel and redpoll were seen, and a grasshopper warbler heard. Foxgloves, belladonna, woody nightshade, marsh valerian, ragged robin, yellow iris, and a profusion of creeping corydalis were noted. A woolly bear caterpillar was found, and back at the car park the appearance of a swallowtail butterfly appropriately completed the day.

Diane Robinson

PHOTOGRAPHIC GROUP

Weatherwise, these past few months of spring and early summer can by no stretch of the imagination be described as having been conducive to good nature photography. However, having sustained a full measure of rain in the first six months, I feel sure that we can with reasonable optimism look forward to a more rewarding second half of the year, and with this in mind will members please note the title of the illustrated lecture the group are committed to provide for the interest and entertainment of the main Society on Wednesday, January 29th, 1986, i.e. 'Urban Wildlife (The Unofficial Countryside)'. Pictures to match this theme will obviously have to be looked for, but with the City walls, open waste sites, and derelict buildings providing suitable habitats for botanical subject matter, and parks and gardens havens for bird, insect and other wildlife, we should obtain some interesting and possibly unusual photographs. We shall need lots and lots of slides, both by way of variety and quantity, so do your best and help us to make this a memorable year for the group, culminating in 'your' lecture to the Society.

Our 1984/85 winter session group lectures were very well attended.

ENTRANCE - M
 2 JAN 1985
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The programme set out hereunder carries us through to the beginning of 1986.

- September 6th, Friday - Lecture: 'Birds with a Camera' (Tony Howes) -
 Assembly House, Edmund Bacon Room, 7.30 p.m.
- October 6th, Sunday - Outing to Burnt Fen, Horning. Leader Mike Woolner.
 Meet Map Ref. TG.339184 at 11.00 a.m.
- October 18th, Friday - Lecture: 'Natural History of North America' (Max Smith)
 Assembly House, Kent Room, 7.30 p.m.
- November 8th, Friday - Lecture: 'My Approach to Natural History Photography' (B. Wingrove)
 Assembly House, Edmund Bacon Room, 7.30 p.m.
- December 6th, Friday - Lecture: 'Nature's Creations' - audio/visual presentation
 by David Macfarlane. Assembly House, Edmund Bacon Room, 7.30 p.m.
- January 29th, 1986, Wednesday - as set out above.

Please make a note of these events and dates in your diary.
 Finally, with a view to increasing Society membership, why not introduce some of your camera-carrying friends to our photographic group? We will make them welcome.

Bob Robinson.

EXCURSION TO NORWICH - May 22nd, 1985

This meeting was intended to introduce members to the wildlife of Norwich. About 25 members met at Heigham Street, Norwich, on a cold overcast evening to look at the wild flora of Norwich. We walked round part of Heigham Street industrial estate to look at the flora. Owing to the late season most plants had to be identified by their foliage. Then we went to Carrow Hill to look at plants on walls. A large number of plants were seen but not in flower owing to the late season. As the meeting finished it started to rain.

Colin Dack

EXCURSION TO DENVER - June 2nd, 1985

This was a joint meeting with Denver, Fordham, Roxham and Ryston Village Trust. A large number of members met at Sluice Common, Denver, to list the wild life of the Common. Will you please let me have copies of your list?

Colin Dack

ERIC CAMPBELL

The Society lost a good friend when Eric Campbell of Great Hockham died in June at the age of 73. He was Hon. Warden of the Norfolk Naturalists' Trust property at Hockham Fen, and would frequently give up his day to lead our excursions. Without his guidance and help in securing access and keys to various rides to enable us to park off the roads, our Breckland field days would have been that much poorer. We particularly remember his leading excursions to West Harling, Hockham Fen, Fox Covert, Cranberry Rough, and especially Knight's Fen with its White Admirals and Berry Catchfly. He was a fine all-rounder and as recently as 1983 found (jointly with E.A. Ellis) the Greater Broomrape at Hills and Holes, Great Hockham -- the first Norfolk record for sixty years. He will be greatly missed.

E. T. Daniels

EXCURSION TO GOG MAGOG & CHERRY HINTON - June 9th, 1985

Regretfully the excursion to Gog Magog (for perennial flax) and Cherry Hinton (for white helleborine) had to be cancelled due to the fact that the plants we were going to see were some three weeks later than usual in coming into bloom. A 'phone call from Mrs. M. Meade of the Cambridge Naturalists' Trust, who was to be our leader, during the morning of Friday, June 7th, said there was no point in travelling the long distance to the Cambridge area as there was as yet nothing to see. That decision was as a result of a visit to the site. Consultation followed at this end and as time was so short, Radio Norfolk

was approached. They kindly broadcast this cancellation several times during the Dinner and Tea-time Shows on the Friday, and on Saturday morning in their hourly run-through of What's On and What's Off section. 'Phone calls were made to some who had expressed an interest in the meeting and they in turn passed the message on. If the message did not reach you, please accept sincere apologies.

Joyce Robinson

SOME BYGONE NORFOLK NATURALISTS - 8

John Henry Gurney (1819 - 1890)

There can be few Norfolk families that have contributed so much to the study of natural history, both on a county and national basis, than the Gurneys. J. H. Gurney, father, was to the fore in this contribution.

Born at Earlham Hall on July 4th, 1819, the only son of the leading Quaker and philanthropist, Joseph John Gurney, he showed an interest in natural history from his earliest days. At the age of 10 he went to a private tutor at Leytonstone and then onto the Friends' School at Tottenham. Yet a year before he had made his first gift to the Norwich Museum, setting a pattern which continued throughout his life. At this time he also began collecting specimens and early on compiled a list of bird species for Earlham numbering 61. Meanwhile his schoolday friends included several naturalists, among them Yarrell who, in later years, received many notes on Norfolk rarities from Gurney.

When 17 he returned to Norwich to begin work in the family's bank. Two years later we find him commencing a nature diary which included, in its first year (1838), a note on the last Norfolk bustard taken - killed near Swaffham. Very early on in these notes Gurney reveals his interest in comparing individuals of the same species from different areas. This was a study he developed in later years and which resulted in a large collection of specimens of the peregrine falcon which were, in turn, left to the Norwich Museum. Gurney was elected President of the Museum in 1849 and became Permanent President from 1869 until his death. This institution benefitted greatly from his vigorous collecting, so much so that on his death Gurney had left 395 species or subspecies of diurnal birds of prey (some 3474 specimens) and 184 species or subspecies of owls (1203 specimens). Furthermore he donated to Kings Lynn Museum a large proportion of the collection he had purchased from Alfred Wallace who had travelled extensively in the Malay Archipelago.

His contribution to ornithological literature was great. He was a regular contributor to the 'Zoologist' and, in conjunction with W. R. Fisher, published 'An Account of the Birds found in Norfolk' (1846). In 1858 he was active in the formation of the British Ornithologists' Union and, in its journal 'The Ibis' presented some of his most important work. 'A List of the Diurnal Birds of Prey' appeared in 1884.

Of course much encouragement was given to our Society, and at its first monthly meeting Gurney was elected an Honorary Member. Subsequently many of his notes and papers were published in the Transactions. Honours were bestowed by many bodies, including from America in 1883, and Moscow in 1888. But it is worth remembering that birds of prey were not his only interest. Along with the Acclimatization Society, Gurney was keen to introduce exotic species into the British Isles. Thus into Norfolk came the Japanese pheasant, and a number of wallabies which escaped from Northrepps Hall. However, his attempt to introduce the grey squirrel to the county was unsuccessful. Besides these activities he was Member of Parliament for Kings Lynn from 1854 till 1866 and, but for a brief spell in Torquay, he lived all his adult life in Norfolk. He died on April 20th, 1890, leaving a son of the same name who achieved equal eminence as a naturalist.

Michael Bean

THOMPSON COMMON

Please send all records to Anne Brewster, Four Winds, Corpusty, Norwich, NR11 6QQ, by 1st September, 1985.

Anne Brewster

EXCURSION TO THE UNIVERSITY BOTANIC GARDENS, CAMBRIDGE - June 29th, 1985

Despite all-night rain and a wet start to the journey, 16 members travelled to Cambridge for this very worthwhile visit. Fortunately the weather cleared after Thetford and eventually became very warm and sunny, which made an ideal day for such an outing (Cambridge had not had the rain).

The Garden Supervisor, who showed us round from 11.00 to 1300 hours, was an excellent guide and gave us much interesting information about individual trees and plants as we looked around the different areas of the gardens. There was much to see - the Stream, the Lake, the Water Garden, the area of Trees and Woodland, the Ecological Area representing rare British species including the rarer British plants of the eastern region, the Horticultural Beds and the Scented Garden and the Winter Garden, and the very interesting Chronological Bed. Then there were the Systematic Beds representing some 80 families of flowering plants. The Rock Gardens and Alpines were a blaze of colour. We enjoyed every minute of our guided tour and much appreciated the interesting way in which we were shown around.

After a picnic lunch in the Refreshment area - or in our own cars - we returned to look again at some of the areas which most interested us, and to go through the various glasshouses where we saw exotic plants blooming and giant ferns as well as cacti, carnivorous plants, alpines and saxifrages, etc. There was an overall beauty and peace in the grounds, where birds sang and went about their business unmindful of people, as did the grey squirrels darting around the trees and scampering up and down the tree trunks.

Joyce Robinson

NOTES FROM COUNCIL MEETINGS on March 27th and July 2nd, 1985

Formal link with the Trust - For some years a representative of the Trust has been invited to attend meetings of the Society's Committee/Council. Now the Trust has invited the Society to nominate a representative to sit on its Conservation Committee. The Council agreed that the Society Chairman should be the Society's representative unless the elected Chairman proved unable to attend afternoon meetings in which case an alternative representative should be nominated.

Co-options to Council, 1985-86 - It was agreed that representatives of the Nature Conservancy Council, the Norfolk Naturalists' Trust, the Norwich Castle Museum and the School of Biology, University of East Anglia be invited to Council meetings.

Membership of Society Standing Committees, 1985-86 -

Membership Committee - R. Hancy (Chairman), Miss J. Wakefield (Secretary), Mrs. L. Evans, R. E. Evans, E. T. Daniels, M. Woolner (co-opted), J. Goldsmith (co-opted).

Programme Committee - A. Bull (Chairman), Miss D. Robinson (Secretary), C. Dack, A. Johnson, C. Neale (co-opted), D. Fagg (co-opted).

Publications Committee - R. Jones (Chairman), Dr. A. G. Irwin (Secretary), M. J. Seago, R. Hancy, D. A. Dorling, Norfolk Ornithologists' Assn. Representative (co-opted).

Research Committee - Dr. A. J. Davy (Chairman), Mrs. A. Brewster (Secretary), A. P. Scowen, N. S. Carmichael.

Exchanges of Journals with Other Societies - It was agreed to act upon a decision taken twenty years previously to terminate all arrangements to exchange journals with other societies, but that if the University or the Museum wished to sustain exchange arrangements not in the name of the Society, the Society would provide supplies of Society journals at cost price for this purpose.

Peet Fund - In recognition of the substantial contributions made by Mr. T. Peet to the Society over the years, it was agreed to establish a 'Peet Fund' with an initial capital of £1000, further donations to be paid into the Fund; the use of the resources of the Fund to be determined as necessary by resolution of the Council.

Honorary Members & Vice-Presidents - There was a long discussion in an attempt to differentiate and define the positions of Honorary Member and of Vice-President. The Council decided that it wished to retain both positions, and set up a working party of three to draw up propositions to be presented to the October meeting.

G. D. W.

MIDWEEK EXCURSION TO BURNHAM NORTON - July 3rd, 1985

Fifteen members met at Burnham Norton to examine the wildlife of the marsh dykes and saltings. The marshes themselves were a blaze of yellow, especially those that were grazed, and it was ascertained that the yellow was provided by the flowers of the Hairy Buttercup (Ranunculus sardous) which replaces the commoner species on coastal pastures. The dykes themselves were quite clean for the present day, with a fair amount of aquatic vegetation, including two species of Water Crowfoot (Ranunculus trichophyllus and R. baudotii), Fennel Pondweed (Potamogeton pectinatus) and Spiked Water Milfoil (Myriophyllum spicatum). Though Dr. Petch had seen all four Duckweed species in the dykes locally in the past, a search of several duckweed-choked dykes revealed only the Gibbous Duckweed (Lemna gibba).

As we were crossing the marshes, a female Marsh Harrier was discovered putting a flock of Lapwing into a state of great alarm. Presently her mate appeared, carrying something in his talons. We all watched with bated breath and after a time were thrilled to see the male pass under the female, turn over onto his back and pass his prey to the female. We then watched the female as she went into a long glide and eventually landed in a quite small reed bed which had been on our intended route. However, we made a longer sortie than intended, onto the saltings, finding both common species of Sea-spurrey (Spergularia media and S. marina), Sea Pimpernel (Glaux maritima) and quite a long list of other salting plants including the uncommon little grass, Parapholis incurva.

After lunch we returned along the sea banks overlooking Overy creeks, with the lovely Grass Pea (Lathyrus nissolia) flowering all the way. Dr. Petch pointed out one of our less common sedges, Carex divisa, which only occurs in coastal marshes and meadows and, so far as flowers were concerned, we completed our round with a fine colony of Marsh Orchids (Dactylorhiza praetermissa). Among butterflies seen were one or more Painted Ladies and also the first Meadow Brown of the summer. A noticeable feature on the marshes was the lack of pigmentation in much of the Creeping Thistle. Mr. Evans investigated this and found the apparent cause to be a stem-boring grub of some kind. Other birds seen included several Yellow Wagtails, while a pair of Little Terns were seen well near the Overy backwaters.

. Alec Bull

A DATE FOR YOUR DIARY - February 23rd, 1986

The promised excursion for next February has now been arranged as follows: BIRDWATCHING EXCURSION TO BLICKLING -- Sunday, February 23rd, 1986, at 10.00 hours (note the time). Meet in the fisherman's car park at TG.179296. Walk round Blickling Lake. Joint excursion with the Norwich R.S.P.B. group.

. Alec Bull

SERIN AT WELLS FIELD STUDY CENTRE

In the early part of the summer of 1985, a cock Serin (Serinus serinus) was seen and heard by several bird-watchers in the eastern part of Wells Pinewoods. It was reported as having a very wren-like song. On the 20th June I heard what I thought was almost certainly a Serin singing in our grounds at the Field Study Centre (I am familiar with both the appearance and song of this species in France). I came indoors to fetch binoculars and by the time I got outside again the bird had moved into our Cedar where I watched it sitting on a new (green) cone. I was able to photograph it through a 400 mm. lens on June 26th while it sang from a dead branch under the canopy of the Cedar: this proved to be its most regular perch. When not there it could normally be seen or heard in Cupressus trees or on a power-line either side of the premises.

The bird was consistently present in the mornings, and often later in the day, for four weeks. Subsequently its appearance was more intermittent and, when here, its song more sporadic.

The song was generally so wren-like that I was frequently fooled by it. Sometimes it was only the presence of a singing wren nearby which provided the yardstick of comparison to check which was which. This fact, incidentally, makes it practically certain that our Serin was the one previously seen in the Pinewoods.

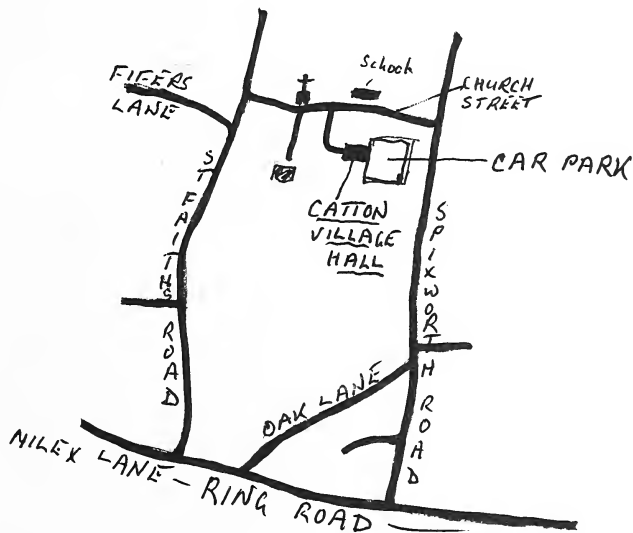
As usual, especially on the North Norfolk Coast, the grapevine soon had the twitchers here. This was the first time we had been on the receiving-end of such an invasion. On the whole they were well-behaved, but on successive weekends we had to close the gates to keep the cars out. A few of them remarked on the appropriate location that the Serin had selected, but I got the impression that most would not have recognised a Field Study Centre (or anything else apart from a new bird) if you had dangled it in front of them!

Paul Banham

CHEESE & WINE EVENING & SHOW IT YOURSELF - November 2nd, 1985

This year's Cheese & Wine & Show It Yourself meeting is moving to a new venue at Catton Village Hall. Mr. A.E. Johnson has been good enough to produce a sketch plan, reproduced herewith, giving the location of the Village Hall at Old Catton.

No excuse now for members failing to catch up with their vittles.



EXCURSION TO HILLCREST, EAST TUDDENHAM - July 17th, 1985

The evening was fairly warm but with a strong westerly wind and a sky dotted with several wisps of high cirrus cloud which sometimes obscured the sun, when eight members of the Society met at Alec and Mrs. Bull's bungalow at East Tuddenham. In the last few years Alec has been growing an increasing variety of wildflowers for seed to supply both commercial organisations and conservation bodies. The bungalow overlooks the River Tud valley and the garden and field soils range from sandy at the top of the hill, through chalky boulder clay in the middle to alluvial near the river. On these soils can be grown quite a wide range of flowers, mostly those that like cultivated and disturbed ground which have largely died out in the wild because of increasing use of herbicides and better methods of seed cleaning. Over 30 species are grown. Alec entertained us with his tales of methods of seed collection from such flowers as Corn Cockle, Mousetail, Shepherd's Needle, Scarlet and Blue Pimpernel, Corn Buttercup, Ground Pine,

Corn Marigold, Cowslip and Wild Pansy, the latter having to be picked on just the right day and before the cock pheasant got to them!

We were delighted by Mrs. Bull's more formal garden, the swallows flying around and Alec's Jacob's Sheep. The very enjoyable evening was rounded off indoors with a chat over coffee, tea and biscuits.

C. Neale

GETTING TOGETHER?

There are many societies of similar or overlapping aims in the county of Norfolk, although all remaining more or less isolated. Several years ago I suggested that we should take the initiative in linking these many bodies together, if only loosely, as a Norfolk Federation, or some similar body, which in unity might speak with some strength. I am thinking of other naturalists' societies like our own but serving regions, such as the Thetford Naturalists, the Heacham and West Norfolk Naturalists, the North Norfolk Naturalists (based at Aylsham), the Great Yarmouth Naturalists, the Norwich Wildlife Group. Or aimed at younger members, like the Norfolk Young Naturalists, Gt. Yarmouth Junior Naturalists, Norwich Watch Group. Or branches of national organisations like the British Naturalists' Society, Cromer Branch. Or conservation groups like Norfolk Naturalists' Trust which, especially through its regional groups -- Norwich, Broadland, North Norfolk, West Norfolk, Mid-Norfolk, South Norfolk, Breckland -- develop a natural history study and education side. Or specialist groups like the Norfolk Ornithologists' Association, the R.S.P.B. Norwich Gp, the R.S.P.B. Yarmouth Gp., the R.S.P.B. West Norfolk Gp., the Nar Valley Ornithological Society, the Young Ornithologists' Club: Norwich, the British Butterfly Conservation Society: Norfolk Branch, the Otter Trust, the Norfolk Forestry Club, the Buxton Tree Planters. And so many more besides, such as the Council for the Protection of Rural England: Norfolk Society, Friends of the Earth: Breydon, Friends of the Earth: Kings Lynn, Friends of the Earth: Norwich, Soil Association: Norfolk Gp., Geological Society of Norfolk, Norfolk Conservation Corps, Broads Society, and a wide range of local conservation societies with a natural history interest such as Blofield and District Conservation Group, Costessey Society, Reephams Society, Wymondham Society, to mention but a few.

The Committee of the time discussed the idea and decided (probably correctly) that an initiative from our Society might be seen as empire-building, if not actually a take-over bid; would be resisted; and that it would be better to run an increasing number of joint meetings to evolve a more organic unity. Perhaps I am too impatient, but we do not seem to have moved very far, and I am sure our initiative could be couched in terms which would not be seen as infringing anybody's sovereign rights. What do other members think, particularly those who also belong to one or more of these other organisations?

Geoffrey Watts

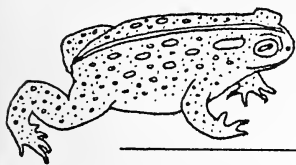
GOWER HOLIDAY

Members may like to hear of an area of the British Isles which would delight all natural historians - the Gower Peninsular in South Wales. I was there over the late spring bank holiday weekend and the following week. There is so much to see, all within twenty minutes drive of a centrally-situated farmhouse base: south-facing limestone sea-cliffs with their wild flower 'rock gardens' of this season; reed beds; sand dunes and slacks; woodland; rocky and sandy shores; moorland; farmland and easily climbed hills. Many of the best areas are protected as reserves -- National Nature, National Trust and Glamorgan Trust for Nature Conservation. The highlights for me were finding a badger sett and seeing three badgers emerge in the gathering dusk; buzzards; ravens; newly emerged ferns and flowers. I could provide more information to any interested parties.

Charles Neale

CONTRIBUTIONS TO THE NEXT NATTERJACK

should be sent to Ernest Daniels, 41 Brian Avenue, Norwich, Norfolk, NR1 2DP, to arrive not later than October 15th, 1985.



THE NORFOLK NATTERJACK

The quarterly bulletin of the Norfolk & Norwich Naturalists' Society

No.11

November, 1985

TESTING THE GROUND

An ancient gardening friend of my youth, now perhaps hoeing some celestial row, was given to trying out new ways as well as new varieties. These innovations would be gleaned from fellow gardeners, or gardening columns in the press, or simply by browsing through the ranks of labels on the shelves of the local horticultural sundriesman (these were the days before 'garden centres'). I particularly remember these horticultural explorations because of his invariable practice of leaving some part of his crop untreated. Perhaps a new fertiliser treatment would be applied to only half of his carrots leaving the remainder untreated; or a new method of battling against insect pests would leave one row unsprayed; or a revised pattern of timing for his chrysanthemums would leave some plants under the old regime. I was never sure whether this sprang from an ingrained suspicion of novelties which would therefore be required to prove themselves by comparison with previous standard practice, or if it was simply a lively, interested and enquiring mind at work. Certainly by setting up side-by-side comparisons of treated and untreated material, he was operating a procedure at the heart of experimental science -- 'experimental' and 'control' batches of material, alike in every respect except for the particular treatment being investigated.

For some naturalists, knowing the names of things is enough, and making a list of the names of things in some set of circumstances is the extent of their ambition. Others are interested in what sorts of things are happening, collecting and recording anecdotal material about the aggressive behaviour of particular birds on the bird table, or the flowering date of the myrobalan tree at the bottom of the garden, or mammals squashed on roads, or lichens found on the south-westerly faces of sandstone walls, and so on. But this can only take you so far since the situations are so complex: different birds attending on different tables in different territories in different seasons: genetically diverse myrobalan trees in different sites on different soils in different seasons: and so on. Waiting for things to happen, particularly when they do not happen often, and when they happen in a complicated and variable way, is unlikely ever to unravel or tease out the factors at work. To be able to test the effect of some particular variable, we need to fix all the other variables, and that will usually mean setting up some sort of experiment involving experimental and control material. It need be little more involved than the experiments (for such they were) of my gardener friend, and yet the method is so powerful that even small results are far more compelling than a basketful of anecdotes gathered on a hundred afternoon strolls.

It is not every naturalist who has the curiosity to want to call upon the experimental method, but for many questions in nature there is no other way of finding answers. The experimentalist, amateur or professional, has much to contribute to the understanding of nature's ways.

G. D. W.

'BRITISH BIRDS' MAGAZINE

Members received with the August mailing a copy of a leaflet offering special terms of subscription for the monthly magazine, 'British Birds'. Articles cover such topics as identification, distribution and biology of European species of birds and is copiously illustrated, with an increasing use of excellent colour plates. Annual competitions encourage bird photographers and artists, the latter section covering the R.A. Richardson Award for young artists. The current special rate applicable to our members is £17.25 per annum for 12 issues plus annual index, all sent regularly by post.

D. A. D.

OFFERS OF TALKS

Members who feel that they have a worthwhile talk or talks which they would like the opportunity of offering to other societies are asked to get in touch with the Chairman of the Programme Committee before the end of the year. Please include the following information:

Name : Address : Telephone no. : Title(s) being offered : Whether projection equipment is needed or whether they have their own : Distance they are prepared to travel (the list will be circulated to all Norfolk societies, Suffolk Naturalists' Society and Cambridge Bird Club) : If they feel strongly about expenses, also include fee required if any (As a pointer when I visited Cambridge Bird Club about 18 months ago, I was offered £15 plus travelling expenses up to 50 miles).

It is intended to ask each Society circulated if they would respond with a list of their own, perhaps then leading to a widening of our own horizons.

Alec Bull

NOTICE OF SPECIAL GENERAL MEETING

At the last meeting of Council, on October 1st, the Treasurer reported on the financial condition of the Society, from which it was clear that an increase of subscriptions was due, if not overdue. If an increase was made the subject of a resolution at the A.G.M. in March, 1986, it would not begin to operate other than for new members, until 1987. In order for a change to act from next spring, therefore, Council decided to put the matter to a Special General Meeting in November, to be coupled with a scheduled lecture, the start of which would be delayed for a short time to allow an appropriate resolution to be considered.

NOTICE IS HEREBY GIVEN that a Special General Meeting of this Society will be held in the Lecture Room of the Central Library, Bethel Street, Norwich, on Wednesday, November 27th, 1985, at 7.30 p.m. to consider, and if thought fit to adopt, the following resolution :

'That in accordance with paragraph 6 of the Laws of the Society, the following rates of subscription shall apply to all subscriptions becoming due on or after April 1st, 1986 :

<u>Membership Class</u>	<u>Annual Subscription</u>
Ordinary	£6.00
Junior	£3.00
Family	£7.50
Affiliation	£15.00

G. D. Watts, Chairman.

APOLOGIES

In the lists of Members of the Society Standing Committees given on p. 5 of the last issue of 'Norfolk Natterjack', the name of Mr. R. Robinson was inadvertently omitted from the Programme Committee.

SOME BYGONE NORFOLK NATURALISTS - 9

Arthur Henry Patterson (John Knowlittle) (1857-1935)

Born in a typical Yarmouth row, of humble parents, Arthur Patterson triumphed against adversity to become one of the finest of Norfolk's proud heritage of naturalists. From his earliest days he took an interest in wild things, accompanying his father to his allotment from where he glimpsed, for the first time, Breydon Water. Later, he visited the estuary with his lifelong friend, Ben Dye, and thus started his association with this stretch of water.

Early influences included the schoolmaster, William Wallis, (who he assisted as a pupil teacher) and Benjamin Harwood, the Yarmouth shoemaker and wild-fowler. Patterson himself took up shooting when he was about 20 and did not give up the 'sport' until nearly 40. Employment was a constant problem in those years, and from an assurance agent, in about 1877, he passed through the varied professions of postman, pedlar, showman (his specimens included a whale and an armadillo), warehouseman, zoo keeper (in Preston and Dublin) till finally (1895) he became a full-time school attendance officer. This post gave him the settled regime he needed to pursue fully his naturalist ambitions. All the time, though, he had been writing profusely: to newspapers, the Zoologist, and for publication. 'Seaside Scribblings', the first book of many, was published in 1887.

His main interests were birds and marine life, especially fishes. In 1901 he published the 'Catalogue of the Birds of Gt. Yarmouth' which was expanded in 'Nature in Eastern Norfolk' (1905). The section on fishes in the latter included many important county records discovered by Patterson while patrolling the wharves and beaches of his home town. Other books and articles dealt with the wildlife of Breydon Water and the activities of that unique breed of watermen who eked a living from the estuary: they were immortalised in 'Wildfowlers and Poachers' (1929). 'Wildlife on a Norfolk Estuary' (1907) is held by many to be his finest work. All of his writings, though, are imbued with a style which is idiomatic if, at times, roughly hewn. Here is Norfolk's Hugh Miller.

Respected beyond the bounds of his native county, he was elected an Associate of the Linnean Society in 1935. Yet he was ever ready to help his fellow East Anglians, like the artists Charles Harmony Harrison (when the family was on hard times) and Frank Southgate, who benefitted at the beginning of his short career from Patterson's patronage (several of his books are illustrated by the young artist).

There must be few lives as full as Patterson's. So many of his achievements are not mentioned here but the legacy we certainly do have in his books and other writings. And his influence is still strongly felt, especially by those fortunate enough to have known the man personally.

Michael Bean

AN INTERESTING DIATOM FROM THOMPSON COMMON

During the winter I examined some samples of diatoms from the pools at the north end of Thompson Common. In the mud I was excited to find a specimen of Surirella craticula, which I had never seen before. This is a striking diatom which appears at first glance to have the typical ribbed valve of a Surirella. The ribs are very tough and heavily silicified. This obscures the fact that they are actually beneath the valve surface. With care the details of the normal valve can be seen.

This species appears in the classic works on diatoms in the last century. It was first described by Professor Ehrenberg who regarded it as a Surirella but it was given its own genus by subsequent writers. Greville referred to it as Stictodesmis, and as Stictodesmis craticula it appears in Fred Kitton's list of Norfolk Diatoms of 1889 from "...Whissonsett, Ormesby, Costessey." (1). Pfitzer, in his work on diatom structure, finally pointed out that it was a monstrosity of the common diatom Navicula cuspidata Kg.

Liebisch has stated that the presence of internal structure like this are the result of dilution or concentration of the water combined with unfavourable nutritive conditions. (2) This 'craticular' form of the diatom has been reported from a ditch alongside the river Cam at Coe Fen by Belcher and Swale (3) and I have found it at Benacre Broad. In both these localities there is a strange salinity situation. The Coe Fen ditch receives water from the Cam when it is high but often dries down and becomes somewhat saline. At Benacre Broad the sample was collected on the Broad side of the shingle sea bank which is occasionally overtopped or permeated by sea water at high tides. It is possible that the pool on Thompson Common also dries during a normal summer. Unfortunately the summer of 1985 has not allowed me to confirm that this is so.

- (1) KITTON, F. (1884) Fauna and Flora of Norfolk XIX Diatomaceae
Trans. N. & N. Nat. Soc. IIIIV 754-770
- (2) LIEBISCH, W. (1928) Pektinmembran der Diatomeen etc.
Zeitschr. Bot. 20. 225-271
- (3) BELCHER, J.H. and SWALE, E.M.F. (1981) Records of Simonsenia delognei and some interesting specimens of Navicula. Microscopy 34 201-206.

K. Clarke

NOTES FROM THE COUNCIL MEETING of October 1st, 1985

Review of Subscriptions - As mentioned on p. 2, the Council discussed the Society's finances and decided to recommend to a Special General Meeting in November an increase in the subscription for the various classes of Society membership.

Honorary Members and Vice-Presidents - The working party set up at the July meeting produced its recommendations to clarify the distinctions between these positions. These suggested that Honorary Membership may be awarded to persons who have rendered notable contributions to the study of natural history in Norfolk, whether or not they are members of the Society at nomination. The suggestion in relation to Vice-Presidents is that they should normally be long-standing members of the Society, who have enjoyed extended periods of office on the Society Council or Committee, and who have made major contributions to the study of natural history. The Council accepted these recommendations in principle, but will consider details at its December meeting before laying recommendations before the A.G.M. next March.

Roadside Verge Nature Reserves - The Chairman reported that at a meeting with the Deputy County Surveyor and representatives of the County Planning Department on August 13th, the County authorities agreed in principle to work towards setting up 50 roadside verge nature reserves at sites recommended by the Society.

List of Speakers - Council accepted a suggestion from the Chairman of the Programme Committee that a list of members willing to give talks to other societies be drawn up and circulated to other East Anglian societies (see p. 2).

Society Library - The Society holds a library of about 100 volumes, kept in the Natural History Department of the Castle Museum. They have come to the Society largely through bequests, and are mostly books of antiquarian significance, valued in total between £5,000 and £10,000. The Council spent some time considering a proposition that since these valuable works were of little relevance to modern natural history, and since they are readily available in other collections in the region for serious researchers, the library should be sold. After some discussion Council decided against the sale of the library.

Projector Fund - The Treasurer reported that £230 had so far been raised for the purchase of a Society projector (for some time the Society has used projectors borrowed either from Keswick Hall College or U.E.A.) and he proposed to add a further £200 from Society funds so that a purchase could be made shortly. Council agreed to this suggestion.

G. D. W.

THE SOCIETY'S SPECIALIST GROUPS

For some years now our Programme Card has carried the names of Organisers of Specialist Groups that are concerned with, mainly, taxonomic groups. The Research Committee is currently reviewing the constitution and activities of such groups. A recent survey of Organisers has revealed that although there is considerable activity on behalf of the Society, few if any of the so-called groups actually function as a group with meetings. Most Organisers see their role primarily as 'recorder', co-ordinating and collating records, as well as disseminating information to interested members. It has even been suggested that members should send their records directly to the Castle Museum and that the current Organisers should become 'referees' or 'advisers' available to assist members with particular matters. Only one respondent expressed the wish to lead a revitalised group (for the algae); another is now resident in distant parts, and two others were at a loss to explain their continuing presence on the card!

The consensus of opinion was that the Society is too small to support actual groups: furthermore that they would be divisive, and even discouraging for beginners. But this is the product of canvassing a small number of experts, whereas the Council is anxious also to be responsive to the needs and wishes of the membership at large. Do you have an opinion? Members with views on these matters, or proposals (preferably supported with offers of practical help and expertise) that they would like the Research Committee to consider are invited to write to the Chairman.....

Dr. A. J. Davy, Cherry Cottages, Wheel Road, Alington, NORWICH, NR14 6NH

REMINDER

As mentioned in the August 'Norfolk Natterjack', an excursion extra to those on the Programme Card has been planned for Sunday, February 23rd, 1986, at Blickling. Meet in the Fisherman's Car Park, TG.179296, at 10.00 hours for a walk round Blickling Lake. Joint meeting with Norwich R.S.P.B. Group. Leader, Charles Neale.

A. L. B.

VERGE WARDEN REPORTS

Would those score or more of members who volunteered to keep an eye on particular verges across the county during this season, but have not yet sent me a note of their findings, please let me know by the end of November if possible? Some of you are involved with verges which are among our recommended 50 (see p. 4) and we need these results in planning our next moves.

Geoffrey Watts

RAFFLE PRIZES FOR THE ONE-DAY CONFERENCE

The Programme Committee are purchasing one major prize -- 'The MacMillan Guide to Britain's Nature Reserves' costing £30 -- for raffle at our One-Day Conference on Saturday, March 15th, 1986 (see separate leaflet), but would be very grateful if any members would care to donate any lesser prizes for raffle.

Alec Bull

THE BIRD WALKER - Bird Song Cassettes

We have recently received for review a set of three cassettes of bird calls published in Britain by Dominic Couzens, 34 Richmond Park Road, London, SW14 8JU, on behalf of a French organisation 'L'oiseau musicien'. This is a centre for the study of bird song under the direction of Jean C. Roche, who prepared the original recordings from material supplied by a number of other recordists.

Its secondary title, 'A Dictionary of Bird Sounds from Britain, Europe and North Africa', gives a clue to the coverage provided by the

three standard cassettes. It is, in effect, a guide to the calls or songs of the majority of breeding birds and regular visitors to the British Isles, Continental Europe west to U.S.S.R., and Western North Africa. 400 species are included, the majority with excerpts of both song and calls. Each species is introduced by its English name and the accompanying booklet gives a brief description of the nature of the item. It also acts as an index. The length of coverage varies from approximately 15 seconds to 45 seconds for species with a varied vocabulary of calls. The first cassette covers 'large' birds of the northern section of the region and the second the 'small' birds of this area. These two cover all the British breeding birds, but a number of occasional visitors appear in the third cassette which covers the 'South' -- large birds on one side, small on the other. As might be expected from the use of the word 'dictionary' in the title, entries in each section are listed in alphabetical order of their English names. Whilst the logic of this system as explained in the booklet is understood, I suspect the majority of serious users of this excellent sound guide will be familiar with the widely accepted order of families and species used in the majority of modern bird books.

The quality of recordings and reproduction is very satisfactory and the coverage for any one species generally sufficient. Once or twice I would have liked to have heard a call not present - calls (as distinct from the song) of the Parrot Crossbill, for example, in view of their occurrence at Wells, to compare it with those of the more familiar Common Crossbill. Comparison of similar species is not easy in view of the use of the alphabetical sequence. The Firecrest and Goldcrest are not far away from each other, but to compare, say, Blackcap and Garden Warbler does mean quite a bit of juggling with the knobs of the cassette player, by which time one may have forgotten the original call. The literature says the intention of the set is to enable the bird watcher to take the tapes with him in the field for use on the personal stereo systems now freely available. I suspect this method will not prove to be widely used; we are already heavily laden with various optical aids and cameras, etc. However, I am sure that many a serious bird watcher will have them handy to play on the car stereo.

To summarise, minor quibbles apart, I find this set a very useful addition to the recorded material available to the ornithologist. Unless he can afford to pay at least five times more for the detailed sets of records or cassettes available, this neatly packaged publication should find a place on the bookshelf of every serious bird watcher alongside his European Field Guides to which it is such a useful supplement. Copies of the set of cassettes, which give a total playing time of 3 hours 15 minutes, are available from Dominic Couzens at the address given above, price £15 plus £1 postage and packing. Cheques should be made payable to 'D.Couzens'

D. A. D.

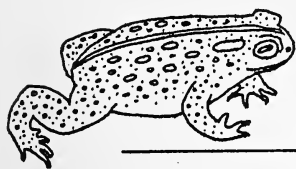
CRAYFISH

While our common crayfish is declining in numbers, possibly due to the spread of a fungal infection, an American species - the signal crayfish - has been imported into this country to be cultivated on crayfish farms and has been advertised for sale to landowners for stocking private waters. It is a larger, faster-growing and more aggressive species, as well as being resistant to the fungus disease, and seems likely to pose a threat to the native species. So far sightings in the wild have been few, but information is urgently needed about their distribution. Both species live in pure water (river, stream, canal, reservoir, quarry) under stones, in holes in banks, or in old tins or other containers on the stream bed. The easiest way to tell the adults of the two species apart is to check the colour of the underside of the claws which is red in signal crayfish and white in the native species. Records to the Castle Museum, please.

G. D. W.

CONTRIBUTIONS TO THE NEXT NATTERJACK

should be sent to Ernest Daniels, 41 Brian Avenue, Norwich, Norfolk, NR1 2DP, to arrive not later than January 15th, 1986.



THE NORFOLK NATTERJACK

The quarterly bulletin of the Norfolk & Norwich Naturalists' Society

No.12

February, 1986

NATURAL SCIENCES

We were talking about the sorts of things that should go into the Transactions. Or rather, I was trying to get Council to talk about the things that go into the Transactions -- that is, the sorts of things that the Society should and should not concern itself with -- but Council was reluctant to be led into a discussion of first principles. All of which is by-the-by, except that during the course of the discussion one Council member offered that, "This is not a scientific society". Pause for thought.

I suppose, in the steps of the sad Dr. Joad, it all depends what you mean by 'scientific'. Certainly no-one should attend meetings at the Library Lecture Theatre expecting to meet a band of white-coated technicians, bustling through towering constructions of laboratory glassware, grappling with milligrammes of this and molecules of that, electronic counters and VDUs flickering in the background (or whatever your favourite archetypal scientist looks like). We are clearly not that sort of creature, but a society of people "having an interest in natural history", whatever that is. 'Natural history' is easy: that means plants and animals. 'Having an interest in' comes closer to the heart of the problem since in order to explain it, we have to say what sorts of questions we would address to the plants and animals we are interested in.

Certainly our first question will almost always be, "What is your name?". This is a fundamental question for almost anybody meeting almost anything for the first time, and as I said in the last bulletin, some naturalists feel the need to go no further: they seek the homeliness, the familiarity, the satisfaction that comes from knowing the names of woodland blossoms, wayside beetles or garden birds, as others will learn to name the stones beneath our feet or the stars in the sky. But for many this is not enough, and any involvement in natural history usually leads on beyond names: distribution in space and time; kinds of relationships; patterns of behaviour; and many, many other dimensions will provoke questions. It may be enough for some just to ask the questions and leave it at that; others will want to dwell on possible answers and perhaps set up possible hypotheses. (A few, regrettably, may become so enamoured of their untested hypotheses that they come to accept them as fact, but not among the members of our Society, I am sure!).

In trying to define 'natural history' or 'naturalist' it occurred to me that someone like Dr. Ted Ellis offers us a paradigm of the naturalist, and since he is not only a distinguished elder of the Society but also a prodigious writer on the subject, his frequent countryside notes collectively

amount to a definition in themselves. In recent E.D.P. columns, for instance, (where I have managed to retrieve them from firelighting) he has touched on rodents in stacks, the origins of winter heliotrope, life on the seabed, bird ringing, violets flowering at Christmas, fruit flies, spiders in garages, and the history of crop plants. Every so often, however, Ted follows a phenomenon to the point where he comes face to face with an experiment. On 23.1.86, for example, in discussing the mixing of different cut flowers in a single vase, he offers the hypothesis, "...I have come to suspect that it is not a good idea to mix bulb-flowers such as daffodils and tulips with, say, chrysanthemums, dahlias or other daisy-like species". In a similar discussion on 29.1.86 of a fern plant and a pitcher plant sharing the same pot he says, "It would be interesting to look into this matter more deeply, by controlled experiments. It might even be found that some of our wild ferns eliminate other competitors for living space by underground warfare."

If one of our members was interested enough to take the matter further, don the mantle of scientist and set up the experiments to answer these questions, would he or she still be acting as a naturalist? I think that the answer must be 'Yes', and that there is certainly no incompatibility between acting as a scientist and as a naturalist: indeed I am sure that there is much affinity. Perhaps ours is not a scientific society in the sense of being devoted solely to scientific endeavours: but that science is a proper and important part of its procedures, I have no doubt.

My apologies to those who recall that I have touched upon related topics before in these editorials (No. 8, Feb, 1985, 'Making and Supporting Hypotheses'; No. 11, Nov, 1985, 'Testing the Ground'). Since this is the last 'Norfolk Natterjack' that I shall be producing, and therefore the last editorial that I shall be writing, I can safely promise never to do it again!

G. D. W.

DATA PROTECTION ACT, 1984

To qualify for exemption from registration under the terms of the above Act it is necessary for our Members to be informed of the information which we maintain on computer files, and to enquire if they object to the data relating to them being held in this way.

Our computer records, which currently are used solely for distributing our publications and other circulars and reminders, contain your name or names and initials, full postal address and membership category. We hope that you will not object, thus allowing our Society to use modern methods for the preparation of your address labels. If you do object to the Society having this data, please send a written notice of your objection to the Society Secretary, Dr. Baker.

In due course it may be possible to add subscription details to our records, but a request for your blessing would be sought at that time.

KENT WEEKEND - June 13th-15th, 1986

Visiting: Sandwich Bay (conservation area); Chalk downland (North Downs) around Wye for chalk flora, especially orchids.

A joint weekend with the Kent Field Club has been arranged on the above dates. Provisional arrangements for accommodation have been made at Wye College, Centre for European Agricultural Studies, near Ashford.

Bed & Breakfast :	£15.50 + VAT per night (Friday, Saturday)
Dinner :	£6.50 + VAT (Saturday; possibly Friday evening depending on time of arrival)

Packed lunches are available (for Saturday and Sunday)

Wye College has 23 bedrooms, 10 double (twin-bedded), 13 single, all with washbasins, H. & C., shower points and desks. Tea-making facilities, soap and towels provided.

Their area is one of outstanding interest. Please contact D. Robinson (Mulbarton 70576) as soon as possible if you would like to take part. Details of deposit required will then be sent.

D. R.

DIATOMS

In the last issue of Norfolk Natterjack I speculated about the origin of Surirella craticula, a diatom which is actually an aberrant form of the common diatom, Navicula cuspidata Kg.. It seemed that in all three habitats which I cited it could have been exposed to osmotic stress and I hazarded a guess that this stress could have been the cause of the diatom producing these strange valves.

Ernest Daniels brought the article to the attention of Bernard Hartley, one of the country's leading diatomists. Bernard very kindly sent me a very interesting article by the Austrian scientist, Dr. Anna-Maria Schmid (PROTOPLASMA, 1979 - 99, pp.95-105). She had studied the influence of environmental factors on the development of the diatom valve. One of the diatoms she had used was Navicula cuspidata. She had been able to produce 'Surirella craticula' at will in the laboratory from a population of Navicula cuspidata by gradual increase in osmotic stress. It was nice to know that, for once, my speculation based on field conditions was confirmed by laboratory experiment.

One thing in science usually leads to another. Dr. Schmid had extended her work into the field and had chosen pools in the Namib desert as a place where diatoms would experience gradual osmotic stress. Her observations on the reaction of diatoms to drying out in the desert conditions throw some light for me on another topic which has been interesting me: the behaviour of diatoms on the sand of our large filter beds when they are left empty in summer. We are beginning some experiments based on this aspect of her work.

Keith Clarke

(Note: Bernard Hartley was a member of the Society until he left Norfolk in 1951 - E.D.)

SOME BYGONE NORFOLK NATURALISTS - 10

Thomas Southwell (1831 - 1909)

The last subject in this series played a vitally important role in the early years of our Society and contributed many learned papers which have added to our understanding of the county's past natural history.

Born in King's Lynn, the young Thomas Southwell soon showed an interest in ornithology; but it was in banking that he found his career. His father was chief cashier at Gurney's bank in Lynn and this was where Thomas started. After six years he moved to the Fakenham branch, and was transferred to the head office in Norwich in 1867. He worked here till retiring after 50 years' service. Although his business took him to many parts of the county, he was never able to pursue a very active career as a field naturalist. However, his enthusiasm took him far into the 'ornithological archaeology' of Norfolk. Southwell published several papers dealing with the early natural history records of the county and the first of these appeared in 1870-71. A paper on Norfolk decoys appeared in 1878 and one on St. Helen's Swan-pit in 1891. In all over 100 papers and notes were published in the Transactions, on a variety of topics, but especially on his particular interests of birds and mammals.

Contributions to the wider record of Norfolk's natural history came when Southwell edited Richard Lubbock's 'Fauna of Norfolk' (1879) in which he added many valuable notes, and the appearance of volume 3 of Henry Stevenson's 'Birds of Norfolk' (1890) which he completed from the letters and manuscripts of the author along with his own knowledge of the county's birdlife.

The study of bird migration was particularly interesting to him as, too, was the nascent conservation movement in the county: he was a tireless supporter of the local bird protection societies at Great Yarmouth and Wells, etc.

Sea mammals also occupied his spare time and from 1884 he contributed annual reports on the seal and whale fisheries to the 'Zoologist'. Southwell published a small book on the 'Seals and Whales of the British Seas' in 1881. In 1872 he was elected a F.Z.S. and in 1881 became a M.B.O.U. As already stated his role in the early years of the Society was crucial. He was Hon. Secretary and held the post of President twice in 1879 and 1893. Outside the N.N.N.S. he worked closely with the museum in Norwich and served on its committee from 1893 till his death. Apart from his administrative skills he was valuable in securing several important species for the collections of birds.

Thomas Southwell died in Norwich on September 5th, 1909. His work rediscovering many of the records of past naturalists and his numerous contemporary notes on the status and habits of birds and mammals have provided workers with invaluable material.

Michael Bean

(In completing his series of ten 'Bygone Norfolk Naturalists', Michael Bean is taking a break from these contributions, at least for a time. I would like to say how valuable these have been during the formative years of 'Norfolk Natterjack', giving members something quite different from the usual field reports or administrative matter. Our thanks to you, Michael.

G. D. W.)

PHOTOGRAPHIC GROUP

1985 will long be remembered for its inclement weather and resultant lack of photographic opportunities. There was for us however in the latter half of the year, some measure of satisfaction in the series of lectures put together by individual members of our group, embracing a wide variety of natural history subject matter, all very ably delivered and illustrated with a wide range of colourful, interesting and instructive slides. I know from remarks made, how very much these lectures have been appreciated, and I feel sure that one of the benefits of belonging to the group is the fact that not only do we enjoy, we also learn from each other's photographic efforts.

1986 is now with us, and whilst it is a little too early to suggest that weatherwise it will be more conducive to better photography than 1985, we can at least look forward to the following programme of indoor meetings to hold our interest, and to whet our appetites, for the very many photographic slides we hope to take in the summer months that follow.

Monday, February 10th - 'Impressions of Uganda' - Richard Flowers -

Assembly House, Edmund Bacon Room.

Tuesday, March 18th - 'An Evening with John Gale' - Dr. John Gale -

Assembly House, Edmund Bacon Room.

Wednesday, April 9th - 'Wood' - Members' Evening - Not a competition, more of a challenge. Bring up to 10 slides that in one way or another 'match' or depict the title of the theme - Assembly House, Edmund Bacon Room.

Thursday, May 8th - 'Audio-Visual Evening' - David MacFarlane - The technique of using dual projectors, bringing in and fading out, short sequences of slides to accompany commentary, or appropriate music.

Assembly House, Kent Room.

Now for a short word to the Society as a whole.

The Photographic Group is not something apart: it is open to each and every member of the Society. It is not for experienced photographers only: if you are at all interested in photography you will be made welcome, and if you are a beginner with photographic problems we have members who are willing to advise and assist.

All Photographic Group meetings are held at the Assembly House (free car parking at the rear if you get there early enough) and commence at 7.30 p.m. The group, 40 or so strong at the moment, would like to increase its membership; no additional fee is involved; why not come and join us?

Bob Robinson

A DISTINCTIVE MOSS REDISCOVERED

Cryphaea heteromalla is a very distinctive moss. Exclusively epiphytic, it consists of a rather inconspicuous creeping, pinnate primary stem. From this there may arise conspicuous erect fertile branches. In the fertile condition it is obvious, and easy to recognise.

In common with many other corticolous species (e.g. Antitrichia curtipendula, Orthotrichum lyelli, Uloa crispa, Uloa phyllantha, etc.), Cryphaea has become increasingly rare in eastern Britain. This has generally been ascribed to the effects of air pollution. It had not been seen in Cambridge for 22 years until refound, growing on elder, in the Devil's Ditch in 1983. Similarly, in Norfolk it had not been seen since 1956 when it was recorded from near Thursford by Dr. C. P. Petch.

In April 1985 however it was found growing and fruiting vigorously on elder near West Raynham. Watson (1981) regards it as being especially characteristic of old elders, but notes that it does also grow on a variety of other species. He lists (1971) its most common associates as being Brachythecium rutabulum, Bryum capillare, Ceratodon purpureus, Hypnum cupressiforme, Orthotrichum affine, Zygodon viridissimus and the hepatic Frullania tamariscinum. In this instance the associated species were Amblystegium serpens, Brachythecium velutinum, Bryum flaccidum, Homalothecium sericeum, Orthotrichum diaphanum, Zygodon viridissimus, and the hepatics Metzgeria furcata and M. temperata.

It is interesting to note that two other pollution-sensitive corticolous species have recently been refound in the county, i.e. Uloa phyllantha and Uloa crispa var. norvegica, neither of which had been recorded for some ten years or so. Whilst it may be true that air pollution has caused a general decline in these species it is equally clear that they are capable of surviving in suitable microhabitats. Certainly in the case of Cryphaea there seems to be no shortage of suitable sites. Presumably therefore its rarity is a reflection of the lack of bryologists in the county as anything else. If any members are prepared to search for this interesting moss I will be glad to send them further information on receipt of a stamped addressed envelope.

Robin Stevenson, 111 Wootton Road, King's Lynn, PE30 4DJ

References

- Watson, E.V. - (1981) - British Mosses and Liverworts - Cambridge.
Watson, E.V. - (1971) - The Structure and Life of Bryophytes - Cambridge. . . .

NOTES FROM THE COUNCIL MEETINGS of December 4th, 1985, and February 6th, 1986

Honorary Members and Vice-Presidents - The Council ratified the Working Party proposals put to it (outlined in Norfolk Natterjack 11) including the proposal that elections for either of these positions should be for life. Council rejected a suggestion that Vice-Presidents should ballot to elect five of their number to serve on Council rather than all Vice-Presidents automatically qualifying to serve.

Coffee at Meetings - Council agreed that for a trial period coffee at meetings should be provided in prepacked cartons with the addition of hot water.

Kent Weekend, 1986 - Arrangements for the visit to Wye College from June 13th-15th next were reviewed.

Nomination of the President of the Society for 1986-87 - Rex Hancy was nominated as the next President of the Society by Tony Irwin, seconded by Alec Bull and agreed by Council.

Society Librarian - Council accepted the suggestion that the Society's Library needed care and supervision and agreed to appoint a Librarian. Robert Driscoll was proposed by Tony Irwin, seconded by Rex Hancy, and was appointed by Council.

Transactions Publishing Policy - The Chairman proposed that Council, either directly or through its Publications Committee, should be more involved in the contents of its

publications, by defining a publishing policy and by deciding between contributions. Council rejected this suggestion, leaving matters of policy and choice in the hands of the various editors.

Society Referees for Animal and Plant Groups - Council agreed to include on the Programme Card the names of members prepared to advise others about specialised groups of organisms, and that these would henceforth be known as 'Referees'.

Road Verges Nature Reserves Scheme - Council agreed that responsibility for organising the scheme should in future be undertaken by the Research Committee.

Exhibition Meeting, 1987 - Mr. Bull said that a room in the Assembly House had been booked for a day exhibition by the Society in September, 1987.

A.G.M. 1986 - Council discussed and adopted the draft Annual Report and the Financial Statement for 1985, and made its own nominations for presentation to the A.G.M. on March 27th, 1986.

G. D. W.

REFEREES

The next issue of the Programme Card (due to be delivered with the Transactions in the May mailing) will carry the names of members able and willing to advise and assist others in the Society about particular groups of organisms, especially regarding identification. They will be known as 'Referees' and many will be the same people as used to be called 'Recorders' although the emphasis henceforth will be more on offering guidance and less on gathering records. In the case of most groups the Society has a number of able specialists, but in most cases only one name will be given for each group, and this referee will pass on the request where appropriate. Please remember that in writing to Referees or sending specimens to them, that a stamped addressed envelope should be included for a reply. Please remember also that there may be a little time before you receive a reply (although I hope it will not be as long as the 19 months I waited for a reply from a B.S.B.I. referee!). Most Referees would prefer to help you to identify things rather than simply throwing off a list of names, so do have a go yourself with such references as you have at hand. Large collections of material to be identified by the day after tomorrow will not be popular!

G. D. W.

FOR SALE

Nearly complete run of Society Transactions from the start in 1869. Missing parts are Vol. 1, pt. 2; Vol. 2, pts. 1, 2, 4; Vol. 19, pt. 6. Volumes 3, 4, 5, 6, 7, 8, 9 already bound: other parts (over 100) in separate parts as issued, to the current Vol. 27. Whole run, together with over 40 duplicate parts from 1881 onwards, for £165 o.n.o. (Local bookseller has bound copies of Vols. 1 & 2 which he will sell for £17.50 each which would almost complete the run: I could supply a photocopy of Vol. 19, pt. 6 which would complete the text). Ring Tivetshall 661.

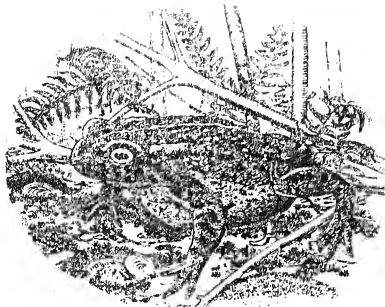
CONTRIBUTIONS TO THE NEXT NATTERJACK

should be sent to Ernest Daniels, 41 Brian Avenue, NORWICH, Norfolk, NR1 2DP, to arrive not later than April 15th, 1986.

'Atque in perpetuum, frater, ave atque vale.'

THE NORFOLK

NATTERJACK



The quarterly bulletin of the Norfolk & Norwich Naturalists' Society

No.13

May, 1986

* * * * *

CHAIRMAN'S CHATTER

At last we have had day or two of springlike weather, and the first bumble bees, Small Tortoiseshells and Peacock butterflies are exploring the early flowers, themselves at least a month late. What chance of survival will they have this coming year with the weather so variable with hail, heavy rain and high winds etc? No cool April showers to bring forth the sweet May flowers.

All your records will be welcomed however by the specialist recorders who will be only too pleased to identify specimens, but please remember the S.A.E. if sent by post.

The television has brought a great interest of natural history into our homes. I find the general public much more inquisitive, and as our countryside changes decade by decade it is even more important that we can pass on to future generations the records of our time.

When comparing old lists of species with present day lists, one becomes aware of the large number of Flora and Fauna that have either disappeared from our county, or are just surviving in a very few localities.

Your help is required now.

Ken Durrant

REMOVING THE BUSHES

We know we belong to an active Society but is this widely known? Our recent one-day conference, aimed at and thoroughly enjoyed by committed naturalists, showed that the light is still shining brightly. It is now some time since our equally successful exhibition in Norwich's Assembly House and we must go on trying to reach the interested but uncommitted general public.

So far, we have arranged to take part in three events this summer to do just that. Please do your best to come along and help in any way you can. This may be "only" talking to visitors - but this personal contact can be the most important part of all.

The events are:

Taverham Nursery Centre, on Saturday 21st. June. This is entirely our own show. It will be in the brand new exhibition hall and coffee room. We can guarantee a good crowd so do join us there.

The Riverside at the Cow Tower, Norwich, on Sunday 6th. July. We will be running one stall of the many contributed by local organisations in the Wensum Carnival, 1986.

Butterfly Festival, How Hill, on Sunday 3rd. August. Again, one of many so plenty of helpers required to make our presence felt.

Rex Hancy

MEMBERSHIP

I would like to see the Society go from a cosy group to a much more go-ahead Society. To do this we must recruit more young members. We are in danger of getting lost in the wilderness. Many present members don't like talking to outsiders about the Society. Why is this? If we don't advertise how will we get new members? It's not up to the few to do this, everyone should be doing it. We must be like evangelists going out to tell people what they are missing by not being with us. I do this and sign up new members and so do some others but we are in the minority. For example I have been writing to places of work to ask the managers to place a letter on their staff notice boards, some have written back asking for a supply of membership forms. If you know of somewhere a notice could be displayed, please tell me or mention it when you see me at a meeting. Can you put a notice in a vacant shop window or house which is by the road? This should be a good place to arouse people's curiosity.

Without a strong membership, how can the Society carry out its objectives?

1: The practical study of natural science. Without research, how can we say if a habitat is worth saving?

2: The conservation of wildlife.

3: The publication of papers on natural history, especially those related to this county.

4: Arranging lectures and meetings and the promotion of fieldwork.

So let's go out and recruit more members and help them develop with us our naturalists' curiosity in the natural history of Norfolk.

Finally, I would like a feedback of information from you about events you feel the Society should be taking part in. Often we don't find out till it's too late!

Colin Dack, Membership Secretary.

On Saturday 19th April 11 members and friends met at the Norfolk Naturalists Trust Cley reserve in spring sunshine, but not spring temperatures, as hats, coats and gloves were needed for most of the day. 4 of the reserve's 9 hides were visited and 30 species of birds seen.

Highlights! The almost constant Lark song, the tumbling flight and calls of Lapwing, the striking chestnut and green head patterns of closely observed drake Teal. Black and white flashes from the wings of aviating Avocets. The sight of a Swallow and 5 Sandwich Terns heading westwards, the pristine plumage of passage Wheatears using turnips put out for cattle as look-out posts to capture insects. The browns and golds of a Short-eared Owl's plumage in the afternoon sun and lastly the Harvest Mouse summer nest that Ann Brewster found in only the second clump of Cocks Foot grass that she searched!

A very enjoyable visit.

Charles Neale

Annual Subscription

You will have read in the November issue of Natterjack that I had asked the council to agree to an increase in our rates of subscription. The Special General Meeting was duly held on 27 November and the resolution to increase our rates of subscription from 1 April 1986 to those noted below, was passed.

This is remind members that their subscription was due on the 1st April
New Rates-Junior £3.00 Ordinary £6.00 Family £7.50 Affiliation £15.00

D.A.Dorling, Honorary Treasurer.

THE AMATEUR NATURALIST IN A CHANGING COUNTRYSIDE

The One Day Conference at the U.E.A. on March 15th was a great success, both in terms of the interest aroused, and financially. Nearly 180 people attended, and heard a variety of view points on the countryside past and present.

Dr. Ellis started the proceedings with a delightful account of the countryside as he knew it over many decades, and of his observations carried out at Wheatfen on the affect of modest management on wet woodland over a period of years. He mentioned some of the changes for the better that he has seen, including the demise of the old punt gunners with their huge 'bags' of waders, and finished by paying tribute to the many amateur naturalists he has known.

He was followed by Dr. Frank Perring, Secretary of the Royal Society for Nature Conservation, who gave some very sobering facts and figures on such things as the mileage of hedgerow lost since the last war, and mentioning that the rate of loss had not slowed appreciably to the end of 1984, and dealing with all aspects of loss in the countryside, such as meadowland, wetland and heathland.

Dr. Tony Irwin took us behind the scenes of Norwich Castle Museum, starting with the bird room, a photograph taken during the 1890's. In the lunch queue, I overheard, "that photograph of the room in the 1890's. The only thing that has been moved since then is the Great Auk!" Tony ranged far and wide over the many aspects of the county's wildlife, finally settling down among the less common woodlice on Snettisham beach, with a couple of barbed harpoons aimed at the AW for certain coastal defence works.

The final speaker of the morning session was Mr. Alec Bull, taking the conference theme as his title. The session chairman, Mr. K. McDougall, Chairman of the NNT, described Alec's talk as "robust and provocative" and said that he agreed with about 75% of it.

After lunch, we resumed with a very polished talk by Mr. Phillip Richardson who farms at Wymondham. He brought us up to date with with legislation which is likely to affect the countryside in the future, and held out hopes for a much closer co-operation between farmer and naturalist in the years ahead.

Mr. N. Dannatt, the Eastern Conservancy Officer of the Forestry Commission and a naturalist, gave us a very interesting talk on the work of the Commission, especially in Thetford forest. He showed us how present policies are now directed at helping wildlife wherever possible. He pointed out that, though considerable restraints are placed on the Commission in respect of leased woodlands, amateur naturalists are always welcome in those woodlands wholly owned by the Commission.

After the afternoon interval, the raffle was drawn. Then Lt. Col. C. N. Clayden took us on a whirlwind tour of Ministry of Defence properties, and showed us how well the MoD look after their wildlife and how much of it they have, including many of the best examples of particular types of habitat in the country. In many cases the average amateur naturalist will get no closer, though of course, there is a willing band of amateurs doing conservation work on each MoD property in the country as there is in our own Stanford Battle Area, where Col. Clayden chose to end his tour.

Everyone felt sorry for Richard Hobbs, as the earlier speakers during the afternoon had overrun their time, and he was left with just fifteen minutes to get through his half hour paper, as we had a five o'clock deadline to clear the lecture theatre by. Never mind Richard! It is hoped to publish at least some of the papers in full, and, as you did not get the chance to say it in full, your talk ought to appear in print in full!

The names of most of the raffle winners appear hereafter.
"The McMillan Guide to the Nature Reserves of the British Isles."
Winner Mrs.C.Homke of Dereham.
A very attractive dish designed,made and presented by Mrs.C.Farrow.
Winner Mrs.B.Hancy.
"The Amateur Naturalist" by Gerald Durrell.
Winner Mr.G.Nobbs of Yaxham.
"The Life and Times of Arthur Patterson" by Beryl Tooley.
Mrs Tooley very kindly donated an autographed copy.
Winner not known.
"The Wildlife Rangers Handbook" Donated by Mr Dannatt.
Winner Mr.R.Joslin of Syderstone.
"Making Nest Boxes." A B.T.O. Handbook. Donated by the B.T.O.
Winner not known.
It is hoped that the final figure will show a profit of about £350, to be used for publication of the proceedings.

Carex appropinquata Would members who are acquainted with this species please send any recent records to me including any they may make this year?

EXHIBITION MEETING 1987

An error appears in the last issue of Natterjack, on this subject. The mention made of it should have read "Alec Bull has applied for the hire of the Ivory Room for an Exhibition Meeting to be held on a Saturday in mid-September 1987", and not as stated. In fact, the application was turned down, as, apart from a few weeks immediately after Christmas, both the Ivory and Hobart Rooms are only let by the week. Council will be discussing the matter further.

. During the course of a year, the secretary of any Natural History Society receives a large number of circulars, some of interest, others less so. Among these may be catalogues and leaflets of new and secondhand Natural History books, leaflets advertising Nature Holidays at home and abroad, Field Study Centres, and so on. Many of these would perhaps be of interest to someone in the Society, but in many cases only one copy is available. To take such items to meetings still only alerts perhaps 10% of the members to what is available. It occurs to me that an occasional note, such as this, in Natterjack, saying that such leaflets are available if any member requires help in obtaining advice or information on any of the subjects mentioned-or related subjects not mentioned, perhaps-I don't yet know what may come during the year. One provisional thought, to help the Secretary, and the Society's finances, a phone call first, if you are not sure whether the information you require is likely to be available, and then, if you expect an answer, a stamped addressed envelope of suitable size!

Alec Bull, Secretary.

PHOTOGRAPHIC GROUP

The 8th May photographic lecture brings us to the end of the 1985 winter and spring indoor programme, and I feel sure that all would agree the year has been a most successful one. As will be seen when the 1986/87 Society programme comes to hand the planned outings (24 in number) would appear to provide ample scope for 'photography in the field' and for this reason it was felt that the addition of specific photographic outings would be difficult to fit into such a full programme. With the photographic opportunities presented on these Society outings members should - weather permitting - be able to record subject matter and habitats relative to the particular branch of natural history in which they themselves are most interested. There are so many different facets of nature that attract, and likewise a variety of photographic techniques which ensure that no two pictures are alike, and it is this diversity of interests and of photographic application which makes our lectures so interesting.

1986/87 Indoor Programme

- Wednesday Sept 10th Assembly House, (E. Bacon Room)
" Geology & Natural History in East Anglia " Philip Cambridge.
- Thursday Oct 16th Assembly House, (E. Bacon Room)
" Photography for the joy of it " Bob Robinson.
- Wednesday Nov 5th Assembly House, (Ivory Room)
" On foot in the Lake District " Harry Varden.
- Thursday Dec 11th Assembly House, (Kent Room)
" The Photography of Insects " Tony Irwin.
- Wednesday Jan 28th City library Lecture Theatre
Group entertains Society Theme to be announced.
- Friday Feb 27th Assembly House, (E. Bacon Room)
" The Common Loos through the Seasons " Mary & Don Dorling
- Wednesday Mar 18th Assembly House, (E. Bacon Room)
" Travels in the Galapagos " Peter Boardman.
- Wednesday April 13th Assembly House, (E. Bacon Room)
Members Evening. A Challenge - your slides to match the theme " Water "
- Wednesday May 13th Assembly House, (E. Bacon Room)
" Travels in the South & West of North America " Max Smith.

As hitherto the final half hour or so of each lecture night is reserved for the showing of members own slides - up to six each please, on any particular theme or subject matter.

Bob Robinson

UNIVERSITY MARINE BIOLOGICAL STATION MILLPORT

The Station intends to run an extra-mural class in Marine Biology over the period: either 31 July - 5 August or 7 - 12 August 1986. Cost, the course including full board at the Hostel is £145 (inc. VAT) for a shared room, £153 (inc. VAT) for a single room. Contact The Station Secretary, University Marine Biological Station, Millport, Isle of Cumbrae, Scotland. KA28 0EG. Tel: 0475-530581. or send stamped addressed envelope to Colin Dack for photocopy of leaflet.

NORFOLK BUTTERFLY SURVEY

Please read the enclosed sheet concerning this major project, and start recording now! This survey is for everyone, not just the experts, so please make a big effort to cover your local patch and any other sites you visit during the year.

MILLIPEDES

The accompanying issue of Transactions contains an account of the county's centipedes. Dick Jones of King's Lynn Museum thanks everyone who has been supplying him with specimens, and hopes now that a steady stream of millipedes will engulf him during the year. He is particularly keen to see specimens from East Norfolk. Please pop your millipedes into a film container, marg. tub or similar and send them (with full data) to Dick or leave them at Norwich Castle Museum. Will your garden be mentioned in next year's account of the Norfolk fauna?

TOM NORGATE

Tom Norgate died on 21 August 1985. He compiled the annual weather summary for the Transactions from 1970 to 1985, and was Director of the Norfolk Rainfall Organisation since 1963.

Tony Irwin

REPTILE AND AMPHIBIAN RECORDS

Over the years I have received details of many well-recorded observations from members and these members may be wondering what has happened to their information. Original record sheets and letters have been kept and details of sightings have been transferred to edge-notched cards to make the extracting of information easier. A year or so ago I proposed that a report could be written in 1985 to cover all the species, a decade after previous one, and published in the Transactions. The editor considered that reports on single species or small groups would suit the publication better and following this decision I wrote on Natterjacks in '85 and water frogs in '86. I would like to propose the following reports to take us to the end of the decade:

Adder and Grass Snake '87
Common Lizard and Slow Worm '88
Common, Great Crested and Palmate Newts '89
Common Frog and Common Toad '90

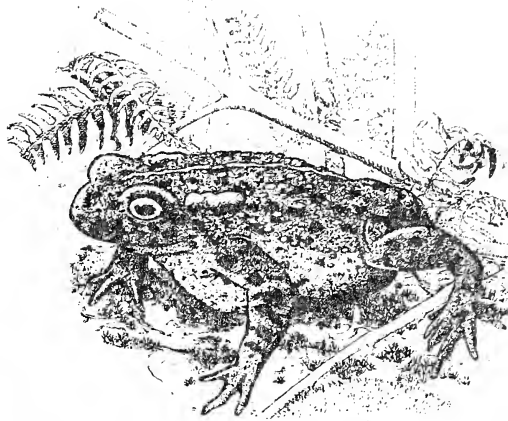
May I take the opportunity to ask members to send in all records of species seen during this year and last. Please send records c/o Castle Museum or to John Buckley, 77, Janson Road, Shirley, Southampton. SO1 5GL

John Buckley.

BAT YEAR 1986

The Norfolk Bat Group (a special study group of the Norfolk and Norwich Naturalists' Society) has a programme of projects and events for the year aimed at greater understanding for these declining animals. A quarterly newsletter is produced - further details from: John Goldsmith, Natural History Department, Castle Museum, Norwich. Tel: Nor 6611277 ext 287

CONTRIBUTIONS TO THE NEXT NATTERJACK should be sent to Ernest Daniels, 41 Brian Avenue, Norwich, Norfolk. NR1 2DP, to arrive not later than 10th July 1986.



THE NORFOLK NATTERJACK

The quarterly bulletin of the Norfolk & Norwich Naturalists' Society

No.14

August, 1986

* * * * *

On the 22nd July the Society lost it's most distinguished member, Dr. Ted Ellis. Three times President, honoured by many national Natural History Societies and culminating in 1970 with an honorary Doctor of Science degree by the University of East Anglia.

'Mr. Natural History' as he was affectionately known lived his 77 years to the full, even in his latter years his mind was as alert and active as in his youth. He could instantly recall the name of some obscure micro-fungi, plant or insect and would readily infuse enthusiasm to whom ever he was speaking, be it with children or some professional body.

Recalling over half a century of many interesting excursions taken with Ted throughout the County, in latter years with his duffle coat, gumboots, carrying his collecting basket and with always his beloved pipe for which he was often teased. He was always searching with that spirit of discovery so characteristic of a field naturalist, and he would pass on in his notes what he had found.

In the early 1930's his weekly 'Nature Notes' published in the Eastern Evening News were always looked forward to at the weekends. His command of the written word was such that his daily jottings in the Eastern Daily Press were enjoyed by young and old alike, he would even go into verse at times.

We shall miss his charming personality, he has shown us the way, it is up to us who are left to follow his path.

Our sympathy goes out to Phyllis his wife, and to his family in their bereavement.

Ken Durrant.
Chairman.

BIRDWATCHING FIELD TRIP

20th April 1986

Six hardy souls, including the leader M.Rains, met at Denver Sluice. Heavy rain on the way there and the threat of more to follow resulted in a change of plan, so that we would not move too far from the minibus.

Tottenham gravel pits proved disappointing except for Goldeneye, Great Crested Grebe and an escaped Barrow's Goldeneye. A visit to a nearby caravan site with lakes and woodland produced sightings of Blackcap, Willow Warbler, Chiffchaff, Greater Spotted Woodpecker, Green Woodpecker, Pinkfeet and Greylag Geese and also some sunshine between the showers.

After lunch, eaten in the minibus, five of us walked from Stow Bridge to Downham Market along the Washes. The sixth drove to Downham Market and walked back to meet us. The weather cleared and conditions underfoot were much drier than expected. All of us enjoyed the walk and the sighting of Ruff, Arctic Tern, Wheatear, Yellow Wagtail, Meadow Pipits, Oystercatcher, Snipe, Redshank, Wigeon, Little Grebe and Lapwing.

Returning to Denver in the minibus it was agreed that those who had been deterred by an adverse weather forecast had missed a thoroughly enjoyable day.

Mike Poulton.

MINSMERE CIRCULAR WALK

18th May 1986

Some 20 members arrived at Minsmere cliffs car park and set out, though only 15 of us completed the circumnavigation. The weather was fine, though with a strong south westerly wind. However, in the early stages, the walk was entirely devoid of excitement. Nothing stirred on our crossing of the heath, and the part through the birch woods was strangely quiet, apart from the song of Willow Warblers, which seem to comprise at least 90% of the bird life. Just before we left the woods for the track across open farmland, a Garden Warbler was singing and very obligingly allowed himself to be seen.

The farmland track is usually gay with flowers by this season, but such is the general lateness, that far fewer than usual were found, including Tarweed Amsinckia intermedia, Spring Vetch Vicia lathyroides, and Spring Beauty Montia perfoliata. A few fungi were noted, including Coprinus plicatilis, Bolbitis vitellinus and a large Earth Cup growing among dead leaves by the second area of woodland; this was dark brown on the inside, and pruinose on the outside. The second area of woodland also held a singing Nightingale.

The marshes flanking the Minsmere River, beside which we had lunch, held parties of Canada Geese in either direction, and the one to the east had also a single Barnacle Goose among its members-presumably an escapee from captivity. A pair of Mute Swans were present on the river.

After lunch, as we approached the hamlet of East Bridge, we saw a Yellow Wagtail, a pair of Goldfinches, and were treated to excellent views of a female Gt. Spotted Woodpecker.

We diverted from our path for a while to view a one acre Wild Flower Garden, open on the day at East Bridge as part of the Suffolk Trust for Nature Conservation's contribution to National Wild Flower Week. We found a very interesting and praiseworthy display of something like 250 species of wild flowers which the Lady and Gentleman who own the garden, had collected originally as seed from far and wide, and had painstakingly tried to create the right habitat for them. From here, we saw a lovely male March Harrier over the marshes, and, perhaps a little surprisingly, a passing Holly Blue Butterfly.

From East Bridge to Minsmere beach, we travelled mainly in hope, though we did find Spotted Medick and Water Violet flowering, and heard Reed Warblers singing in reedy dykes. Two Snipe were also drumming over an area of marsh, and several Shoveler were engaged in aerial 'follow my leader'. At a different level, so were four Hares on a field towards Sizewell.

So we came to the beach, being greeted by a Whitethroat singing in some bushes, as we made our way along to the RSPB public hide. Even here, there was no great variety of birds. Lots of Avocets sitting on nests, with over a dozen on one small island. Other waders included Redshank, Oystercatcher, Dunlin, Ringed Plover, and a lone Common Sandpiper, while, Shoveler apart, duck consisted of Shellduck, Mallard and a few Gadwall. Canada and Grey Lag Geese were present, a pair of the former having five fluffy goslings. The highlight of our time in the hide, was undoubtedly the appearance of a pair of Marsh Harriers, sweeping to and fro over the reedbeds, with a third, very distant bird, visible at the same time. Common and Little Terns were present in good numbers, displaying round the pools, and we noted that the RSPB have quite a respectable area cordoned off for them on the beach. It was heartening to see so many Sand Martins going to and fro towards the crumbling cliffs, after the decline in numbers over the past year or two.

Alec Bull.

FLORDON COMMON EXCURSION

25th May 1986

About 30 members and friends enjoyed a visit to this famous site in ideal weather. Near the parking area three dragonflies, the Large Red Damselfly Pyrrhosoma nymphula, were seen. From their fluttering flight and rather drab colour it was evident they had recently emerged. The butterflies noted were Orange-tips, Green-veined Whites and Small Whites and a Silver-Y Moth was flying. John Goldsmith found a Snipe's nest with four eggs in a very wet area surrounded by Ash seedlings. Blackcap, White-throat and Song Thrush were heard. Amphibians included a Common Frog and a number of small Common Toads, believed to be two years old.

Choice plants were plentiful, although much retarded by the weather earlier on. Examples of this were Coltsfoot Tussilago farfara and Lesser Celandine Ranunculus ficaria, both still flowering. Adder's Tongue Ophioglossum vulgatum, some with fertile spikes, were frequent locally. Colour was provided by the Cowslips Primula veris, Kingcups Caltha palustris, Bogbeans Menyanthes trifoliata, Heath Milkwort Polygala serpyllifolia, Cuckoo Flowers Cardamine pratensis and a small colony of Water Avens Geum rivale. We were too early for an orchid display but we saw Twayblade Listera ovata (very common), Marsh Helleborine Epipactis palustris (frequent and widespread) with some in tight bud and very commonly the Early Marsh Orchid Dactylorhiza incarnata, mostly with spikes starting to elongate. A few had the lower flowers showing and it was evident that they were of the sub-species pulchella, from their rich magenta-purple colouring. One was seen with spotted leaves and believed to be a hybrid with the Common Spotted Orchid Dactylorhiza fuchsii. Many plants, without flowers but with broad very heavily-spotted leaves were almost certainly fuchsii. A very nice collection of sedges contained Carnation Sedge Carex panicea, Hairy Sedge Carex hirta, Glaucous sedge Carex flacca, Common Sedge Carex nigra, Brown Sedge Carex acutiformis, Greater Tussock Sedge Carex paniculata and Flea Sedge Carex pulicaris. Cotton Grass Eriophorum angustifolium occurred very locally but Bog-rush Schoenus nigricans was abundant and widespread, often forming large tussocks. Fine patches of Ramsons Allium ursinum and Meadow Saxifrage Saxifraga granulata were seen.

Invertebrates found by John Goldsmith:-

Centipedes

Lithobius crassipes
Necrophloeophagus longicornis
Brachygeophilus truncorum

Woodlice
Haplophthalmus danicus
Haplophthalmus mengei

Millipedes

Polydesmus denticulatus
Glomeris marginatus
Tachypodolulus niger
Brachydemus superus

E.T.Daniels.

FORDHAM PUMPING STATION

1st June 1986

This was a joint meeting with the Denver, Fordham, Roxham & Ryston Village Trust, and the Thetford Naturalists. Despite the weather being poor those who attended thought the meeting was well worthwhile. In the morning we went into a nearby wood where Reg and Lil Evans settled down for most of the morning, compiling a good list from this wood. I found a Common Shrew under one of the logs we turned over. Rex Hancy was very pleased to find 'Gold leaf' gall on Poplar and Blackthorn leaves infested by gall-mite Eriophyes similis, this was found where we parked our cars, this put Rex on high for the rest of the day. He also found 3 species of woodlice and 6 species of spider. As some of us walked down the lane to the River Wissey two Golden Orioles were singing.

After lunch we walked down the lane to another wood. In the afternoon the Trust ran the pump engine in the Pumping Station and had a tea party there. This meeting was very useful as it brings members of other groups in contact with each other, I hope this will lead to more cooperation between naturalists groups. This is the fourth joint meeting we have had with the Village Trust, I now feel very much at home with them, they set out to make us feel welcome. The Thetford Naturalists commented upon this. I have made a good number of friends through joint meetings with the Village Trust and with the Thetford Naturalists. A very interesting and enjoyable meeting.

Colin Dack.

KENT WEEKEND 14th & 15th June 1986

Saturday

A really enjoyable weekend with weather to suit. It was noticeable on our journeys through Kent that the roadside verges were bordered white with that pernicious alien Hoary Cress Cardaria draba, here and there patched pink with sainfoin Onobrychis viciifolia.

We met with the Kent Field Club on the Barbican car park in Sandwich and made our way towards the famous golf courses, passing along a path bordered with Smooth-leaved Elms Ulmus carpinifolia, the nearby stream bank was covered with Giant Hogweed Heracleum mantegazzianum and Teasel Dipsacus fullonum. Amongst the side herbage our prettiest froghopper Cercopsis vulnerata was conspicuous along with hosts of Kentish Snails Monacha cantiana while near the water's edge the tiny damselfly Ischnura elegans was to be seen.

A great amount of interest and discussion took place concerning the plants as we approached the golf course, crossing it as we did with one eye open in case the flying object turned out to be a golf ball instead of one of the many Martins hawking disturbed flies.

On reaching the dunes we were disappointed not to see the Lizard Orchid Himantoglossum hircium in flower, although well grown we were told that they were late this year. Our joy however soon returned when we came upon numbers of Clove Scented Broomrapes Orobancha caryophyllacea some with extremely strong scent. The Common Storksbill Erodium cicutarium was also a frequent plant here.

Lunch was eaten on the shingle bank amongst the Sea Purslane Honkenya peploides and Sea Holly Eryngium maritimum. All along the edge of the bay were large clumps of Sea Kale Crambe maritimum in full flower, a magnificent sight. At times we thought we had found stray golf balls only to discover they were Puff Balls Bovista plumbea so realistic as to confuse.

A large number of webs containing the caterpillars of the Brown-tail Moth were found upon the Hawthorn bushes and ornamental Rosa rugosa on the edge of the shingle bank.

An old piece of plastic from a smelly dyke created a lot of interest, with Dr. Roy Baker expounding the life histories of the various aquatic snails and leeches found upon it.

Returning via the floodbank we found Dwarf Mallow Malva neglecta and were overjoyed to find Grass Vetchling Lathyrus nissolia in flower, the solitary red flowers contrasting with the grasses.

Other Insects noted:-

Lepidoptera

Large Garden White
Small Garden White
Green-veined White
Small Heath
Small Copper
Wall Brown
Common Blue
Cinnabar Moth
Silver Y
Yellow Belle
Oblique Striped

. Diptera

Dysmachus trigonus

Hymenoptera

Ichneumon sarcitorius

Coleoptera

Rhagonycha fulva
Rhagonycha lignosa
Rhagonycha clypeata
Lema lichenis
Haltica lythri
Ceuthorrhynchus assimilis
Phyllobius viridicollis
Philopodon plagiatus
Propylea 14 punctata
Coccinella 7 punctata
Isomira murina
Aphoebus luridus
Aphodius sphacelatus
Adeloceta murina
Athous hirtus

Sunday

We met at the Wye Nature Reserve on top of the Crundale Chalk Downs along with scores of the hiking fraternity who fortunately were exploring in the opposite direction.

We walked along the top, then down into woodland, Salad Burnet Sanguisorba officinalis was flowing everywhere, we entered a glade amid masses of Twayblades Listera ovata here and there were Large Butterfly Orchids Platanthera chlorantha, Fly Orchids Ophrys insectifera and Lady Orchids Orchis purpurea.

The Broad Helleborines Epipactis helleborine were not in flower although quite conspicuous.

We returned to the downs for our sandwiches, to muddle and check notes before making our various ways homeward, tired but happy.

Insects noted:-

Lepidoptera

Brimstone Butterfly
Orange Tip
Large Garden White
Small Garden White
Speckled Wood
Wall Brown
Common Blue
Brown Argus
Small Tortoiseshell Caterpillars
Poplar Hawk Moth
Burnet Companion
Common Pug
Nettle Tap

Coleoptera

Strangalia maculata
Isomira murina
Malachius bipustulatus

Homoptera

Issus coleoptratus

Hymenoptera

Nomada marshamella
Dolerus germanicus
Macrophya annulata
Macrophya ribis
Rhogogaster punctulata

Diptera

Eristalis pertinax
Isopogon brevisostriis
Ferdinandea cuprea
Xylota segnis
Eristalinus sepulchralis
Chrysotoxum cautum
Platycheirus clypeatus
Platycheirus fulviventris
Lejogaster metallina
Cheilosia variabilis
Tipula vernalis

Many thanks to our Kent hosts for a delightful weekend.

Ken Durrant.

EXCURSION TO RINGSTEAD DOWNS

29th June 1986

On this day a party of 14 met at Ringstead downs to examine the best example of chalk grassland in West Norfolk. A warm sunny day had followed a spell of very dry weather, but the typical plants, rooted in the chalk, were flowering freely. Strict calcophiles of Norfolk were represented by abundant Sanguisorba minor Salad Burnet, Filipendula vulgaris Dropwort and Asperula cyanchica Squinacy Wort. Other species, common on chalk but not confined to it Helianthemum chamaecistus Rock Rose, Arabis hirsuta Hairy Rock-cress and Inula conyzia Ploughman's Spikenard. Cirsium acaule Stemless Thistle was abundant but not yet in flower. The fruits of Hippocrepis comosa Horseshoe Vetch could be seen. Some of the party paid due deference to the site where the leader had been accustomed to find Spiranthes spiralis Autumn Ladies Tresses during the nineteen twenties, but there is little hope of it appearing again.

A sad feature of the Downs is the extent to which scrub, chiefly Hawthorn and Sweet Briar, is encroaching on the grassland. As in all chalk downs in southern England the characteristic short turf has been maintained, probably since Neolithic times, by grazing sheep. Now Norfolk agriculture is based on arable farming, and the cost of fencing a long narrow valley is probably prohibitive, so the sheep have gone.

C.P.Petch.

ROYAL ENTOMOLOGICAL SOCIETY REGIONAL MEETING

October 31st 1986 at University of East Anglia, Norwich.

BIOLOGY OF GRASSHOPPERS

Dr Godfrey Hewitt	Hybrid zones in Grasshoppers
Dr Roger Butlin	Grasshopper song and speciation
Dr Mark Hassall	Population dynamics of Grasshoppers in Breckland

Meeting will commence at 16.00

Posters of entomological work will be on display from 15.00

Anyone interested in attending, contact Bob James, School of Biological Sciences, U.E.A., Norwich, for further details.

MOTH WORKSHOP

Tuesday 16th September 1986

The Norfolk Moth survey are arranging a workshop to assist with the identification of autumn moths. Set specimens, genitalia preparations and transparencies of live moths will be used to help separate 'difficult' species. The meeting is primarily for moth fanciers, but is open to everyone who might learn something useful.

DIATOM EVENING

Wednesday 15th October 1986

Keith Clarke has kindly agreed to tell us about diatoms, those important but overlooked little plants upon which so much else depends. Microscopes and slimy water will be provided, and there will also be an opportunity to delve into the past with ancient microscopes and slides. Anyone with an interest in aquatic life or natural history in the nineteenth century should make an effort to attend.

Both the moth and diatom meetings will be held at the Castle Museum, Norwich, starting at 7.30 pm. Numbers may have to be restricted, so if you hope to come, please let Tony Irwin know (work Norwich 611277 Ext.287, home Norwich 56674).

A MESSAGE FROM DOWN UNDER

While holidaying in Western Australia this winter I was able to meet a former member of the N.&N.N.S. Mr Alan Notley who wishes to send his good wishes to the Society. He worked on the grounds at Earlham and for a while was proprietor of the Gardeners Store on the Old Cattle Market. He was also a member of the N.&N. Photographic Society.

At the present time he is horticulturist on a large land development scheme at Yanchep, W.A. and is also Vice President of the Western Australia Naturalist Club. He has been in Australia since 1969.

Should any member be in the Perth area I am sure he would like to meet them and can be contacted at Sun City Nursery, Yanchep (Tel 095 611305).

Yanchep is the site of a large, beautifully laid out marine park with everything from Fairy Penguins to sharks, with shows for adults and children of all ages, in which the humans work with the dolphins in the water in a spectacular show. There seems little doubt that both enjoy their work.

Philip Cambridge.

AN UNUSUAL STARLING

Anyone who birdwatches in a city garden inevitably gets to know some of the birds who visit his garden as individuals. Usually they are recognised for having lost a leg ("Hoppy" a blackbird), or by their behaviours ("Lightening"- another blackbird noted for his speed in swooping down and grabbing food). This year one of these easily recognised birds has appeared in my garden, a starling who has been nicknamed "Beaky" from his deformity, a pale yellowish beak about twice the normal length. The deformity does not seem to bother the bird in any way.

Philip Cambridge.

THE NORFOLK BIRD ATLAS

Enclosed with this issue is a leaflet giving full details of the Norfolk Bird Atlas. This Society venture is due for publication in November and contains the results of fieldwork over a six year period by over 200 observers. The Norfolk Bird Atlas was first organized by Barrie Harding and brought to a successful conclusion by Geoffrey Kelly. The price will be £5 but a special pre publication offer of £3.75 including postage and packing is available until 30th September.

Michael J. Seago

BRITISH BIRDS MAGAZINE

Enclosed with this issue is a leaflet giving details of the concessionary rates of subscription to "British Birds" available for members of this Society.

This excellent monthly publication contains many articles and features applicable to Norfolk.

D.A.Dorling.

WANTED-YOUR POST CODE

If the address on the envelope containing this Newsletter was incorrect please let me know as soon as possible by returning the label duly corrected (in CAPITALS please). It is particularly important that we include the correct Post Code to ensure prompt delivery by the P.O . Colin DACK, (Membership Secretary), 12 Shipdham Road, Toftwood, Dereham, Norfolk. NR19 1JJ.

TRANSPORT

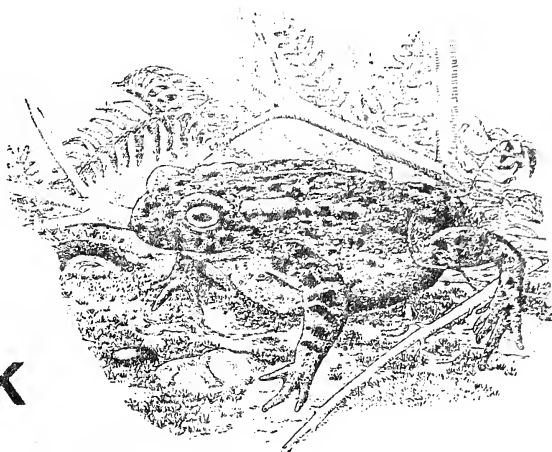
Do you require a lift to Society meetings if so please send your name, address and telephone number to Colin Dack, stating if you require lifts to field meetings and lectures. These will be put in Natterjack to see if a member can give you a lift. It is understood that anyone receiving a lift would help with petrol.

Would you like to do more for the Society? If so, please write to Colin Dack stating in which way you think your skills could be used within the Society. For instance can you type?

CONTRIBUTIONS TO THE NEXT NATTERJACK should be sent to Ernest Daniels, 41, Brian Avenue, Norwich, Norfolk. NR1 2DP. To arrive not later than 10th October 1986.

The editorial policy is to try to use the space in the Natterjack to the best advantage, while keeping field meeting reports in chronological order. If your report or article has not appeared in this issue this will be the reason. It would be appreciated if contributors could keep reports of field meetings to about 300 words. Thank you. Colin Dack, editor Natterjack.

THE NORFOLK NATTERJACK



The quarterly bulletin of the Norfolk & Norwich Naturalists' Society

No.15

November, 1986

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THE HERITAGE OF TED ELLIS

In fifty years at Wheatfen Ted Ellis established a tradition and on his death a number of naturalists have joined together to try to carry on the tradition which grew up at Wheatfen. A Trust has been set up with us both and David Pearce-Gould, an accountant, as Trustees to acquire 100 acres of the Wheatfen land and manage it in the way Ted would have wished.

First and foremost Ted was a researcher of the highest calibre and he was capable of inspiring others to carry out research based on Wheatfen. Phyllis Ellis, Ted's widow, wishes his books and records to be available to research workers in the future and the Trust will try to encourage work at Wheatfen.

Ted was also a great educator, not only through his regular newspaper columns and radio and television appearances but also he never tired of passing on his knowledge to visitors to Wheatfen. The Trust will try to carry on and expand the visits to Wheatfen by individuals and by parties and provide some kind of base where information can be obtained about the Fen.

In the spirit of Ted's ideals we hope to create at Wheatfen not a bird reserve or a nature reserve but a reserve for naturalists.

If you would like to help financially or in other ways we would be glad to hear from you. Write to Dr. Baker at the School of Education in the University of East Anglia.

Roy Baker and Keith Clarke.

ALL THE OFFICERS OF THE SOCIETY WISH ALL THEIR FELLOW MEMBERS MERRY CHRISTMAS AND HAPPY NEW YEAR.

SOCIETY NOTICE BOARD

IMPORTANT NOTICE

A meeting was inadvertently omitted from the current programme, so would all members please make an insert thereon as follows:-

Thursday Feb 26th THE DEER OF THETFORD FOREST.
19.30 hrs Illustrated talk by Rex Whitta, the Thetford Forest Ranger. City Library Lecture Theatre.

RECORDS

Would all members with records please send them in promptly to the Referees/Recorders of the appropriate groups, Bird and Mammal Report Editors ect. In addition, the Norfolk moth Group would like all records of moths to be sent to Norfolk Moth Group, Castle Museum, Norwich, for their County wide survey.

BOTANISTS

Would interested botanists please note that 1987 sees the start of a new nation wide plant recording scheme. 1987 and 88 will be on a sampling basis, to sample tetrads in approx 10% of 10KM squares throughout the Country. These tetrads will then be redone every 10 years to monitor changes in the flora. Following the sampling period, and during the early 1990s it is expected that a full survey of all squares will be undertaken of those species of plants showing marked increases or decreases since the plant atlas 24 years ago. If you would like to take part in the above, please contact your vice county recorder as soon as possible. (see back of programme.)

CONDUCTED THEIR OWN SURVEY

Our Members, Phyll Hardie and Carol Haines recently conducted their own survey on a piece of waste land that was about to be built on. Nothing rare was revealed but a number of interesting plants such as Sweet Briar were recorded. Their list, of about 72 species, is now filed with me, with details of where the site was, ect. even though the site is probably no more by now.

This type of 'personal survey' is to be recommended to members, especially bearing in mind the likelihood that when the southern by-pass is completed, leaving a stretch of 'virgin countryside' between the City and the road. Something unusual might be discovered, in time to shield it in some way from the land hungry developers!

Alec Bull

PHOTOGRAPHIC GROUP

I made a mistake when I copied Bob Robinson list of meetings, the April meeting is on Wednesday 15th not 13th please change date in your Natterjack Nol3.

Workshops

Some more workshops are in the pipeline.
Sunday 11th January 1987 2.30 p.m. 14.30hrs at Lound Waterworks for a further look at Diatoms with Keith Clarke and at the Castle Museum on Wednesday 14th January 1987 7.30 p.m. 19.30hrs to discuss the formation of a Microscopy Group.

COMING ATTRACTIONS

Workshops on:- Dragonflies, Moths in Spring, Moths in early summer, Aquatic Water Plants, Plant Galls, Lichens and Mosses.
If any Members have any suggestions for Workshops would you please write to Editor "Natterjack" (Colin Dack) who will reproduce your letter in "Natterjack" and try bending the appropriate arms to get your desired Workshop introduced. The Editor would welcome anyone interested in running a Workshop to contact him in the first instance.

Colin Dack

PHOTOGRAPHIC GROUP1986/87 Indoor Programme

Thursday Dec 11th Assembly House, (Kent Room)
 " The Photography of Insects " Tony Irwin.

Wednesday Jan 28th City library Lecture Theatre
 Group entertains Society Theme to be announced.

Friday Feb 27th Assembly House, (E. Bacon Room)
 " The Common Loake through the Seasons " Mary & Don Dorling

Wednesday Mar 18th Assembly House, (E. Bacon Room)
 " Travels in the Galapagos " Peter Boardman.

Wednesday April 15th Assembly House, (E. Bacon Room)
 Members Evening. A Challenge - your slides to match the theme " Water "

Wednesday May 13th Assembly House, (E. Bacon Room)
 " Travels in the South & West of North America " Max Smith.

As hitherto the final half hour or so of each lecture night is reserved for the showing of members own slides - up to six each please, on any particular theme or subject matter.

Bob Robinson

Address:-the Assembly House, Theatre street, Norwich.

I have repeated the remainder of Photographic Group indoor meetings for those members who have mislaid their Natterjack No13. I would like to remind members that Photographic Group meetings are open to all Society members to attend. You do not have to have the latest in high-technology jewellery hanging round your neck. You do not have to own a camera, just have an interest in Natural history photography and would just like to come to the meetings. We only mention equipment when someone asks about it. If you have a photographic problem someone in the group would be able to help you.

Wanted

Your unwanted early Back numbers of the Bird & Mammal Report and Transactions, as the Society stock is now exhausted. The publication are needed to meet demand from new members and members doing research. All funds from the sale of these publications will go into the Society funds. Please send or give them to Mr.D.A.Dorling, Mr.C.R.Dack or Dr.A.G.Irwin. If you have a number of publications please contact one of us so we can arrange collection.

The Norfolk Bird Atlas

By the time you receive this Natterjack the Bird Atlas will have been published. If you missed the pre-publication offer you can obtain a copy from Mrs.M.Dorling, 6 New Road, Hethersett, Norfolk. NR9 3HH. price £5 + P&P. cheque made payable to Norfolk & Norwich Naturalists Society. The Norfolk Bird Atlas will be on sale in good book shops in Norwich price £5.

Colin Dack

RAMPARTS FIELD AND WEST STOW

2nd July 1986

Though the weather was hot for this excursion, it was rendered quite pleasant by a nice breeze, except when we went into the forest for a while. It is perhaps worthy of note that, apart from the leader, the only member to turn up was Mr John Davies of Barnham. However, we had a very profitable and interesting day.

Ramparts Field looked rather scorched when we arrived, but first impressions were soon dispelled as we set out across the heathland, carpeted with the massed bright yellow of Stonecrop Sedum acre with here and there, a larger clump of Lady's Bedstraw Galium verum. The Cinnabar Moth caterpillars in places, had eaten themselves out of house and home, and some were seen climbing aimlessly up a tussock of Yorkshire fog!

Among pink flowers which were blooming on the heath, we had a wide range of sizes, varying between Rosebay Willowherb Chamaenerion angustifolium and Sand Spurrey Spergularia rubra, and including Common Thyme Thymus pulegioides. Of more particular interest, however, were two 'Breck rarities' in several clumps of Breckland Thyme Thymus serpyllum, which, as its name suggests, is confined to Breckland in this country, and the Maiden Pink Dianthus deltoides. It was while looking at the latter that we discovered a rare Breckland grass, Purple-Stem Cat's-tail Phleum phleoides, with a dozen or so flowering spikes visible.

Meadow Brown and Small Heath butterflies were on the wing, but these were not the only insects to attract attention. Quite a number of the strangely shaped Sandwasps were going about their business, making burrows to stock with caterpillars in which to lay their eggs. Most of these belong to the species Ammophila sabulosa, but we also saw one specimen which was markedly smaller and slimmer, and of a paler yellow.

Leaving that part of the heath, we went down to the fishing lake, created some years ago from an old gravel pit, and here we spent some considerable time, as there was much of interest to see. Flowers round the margin were unremarkable, and at the same time, very representative of this particular type of habitat, with species such as Water Speedwell Veronica catenata mingling with Greater Pond Sedge Carex riparia, Gt. Hairy Willowherb Epilobium hirsutum and Water Ragwort Saniclo aquaticus. The birds dotted about the water surface included many "Mallard" of doubtful parentage, and a little group of Tufted Duck, already well into their 'eclipse' plumage. Canada Geese seemed to have had a good year, as the flock, which included well grown young, on this pool numbered about 150. In addition to Coot and Moorhen, we also admired a pair of Great Crested Grebes with two nearly full grown, stripy headed youngsters. However, the great attraction which kept us beside the water for some while, were the thronging Damsel and Dragonflies. At least three species of the former were present. These were the Common Coenagrion Coenagrion puella which was the most numerous, and many pairs were seen egg laying in the shallows, the Common Ischnura Ischnura elegans which was present in smaller numbers, in pristine condition, as they appeared to be newly emerged. The Common Blue Damselfly Enallagma cyathigerum. While these drifted to and fro along the water edge, about their business. A good number of Darter Dragonflies were patrolling to and fro on their set beats, soon darting out to chase off any intruder of their own kind which happened to stray into their territory. The males, which predominated, had 'powder blue' abdomens, and I immediately thought of the Broad Bodied Libellula Libellula depressa which used to be common beside all kinds of waters. It eventually dawned, however, that the present species, though as big, were much slimmer, the tip of the abdomen was dark, and there were on dark patches on the bases of the wings. I looked through the Dragonflies of the British Isles, by Cynthia Longfield, I then had a telephone conversation with Howard Mendel, the

Suffolk Entomological Recorder, who told me that Libellula depressa is now quite a rare insect, while the insect I had arrived at in my researches, the Black Tailed Orthetrum Orthetrum cancellatum had enjoyed something of a population explosion in Suffolk over the last five years, especially round disused gravel pits.

Strolling round the margin of the pit, we found large numbers of tiny Toads, newly emerged from the water, and very quick to hop toward safety. And well they need to be able to, for, as we were passing among some water side trees, a rustle at our feet caused us to look down, and breathlessly admire a three foot long Grass Snake gliding through the vegetation within inches of us, ignoring us completely as he went on in the never ending quest for food.

A few yards further on, we were suddenly surrounded by a family of baby Sedge Warblers, tottering around a little clearing on unsteady wings, while anxious parents with beaks full of insects made alarm noises at our passing.

Common Blues, Ringlets, Large Skippers and a very bright, newly emerged Small Tortoiseshell butterfly were encountered, as we made our way to the river bank, where we also found a very worn Red Admiral.

During a few hundred yards walk along the bank of the River Lark, we found families of Moorhen, Mallard, with 7 or 8 still downy young, a pair of Mute Swans with 5 fluffy cygnets, and other flittering families of both Willow and Reed Warblers. Over the low bank across the river, we had good view onto Lankford Pits a series of gravel pits in various stages of use, from quiet, and sallow fringed, to noisy, with a new beach, and gravel washing plant nearby. On the water were another hundred or so Canada Geese, many Mallard, and a nice party of Pochard. When we reached a point opposite the beach, we discovered a Ringed Plover species pottering about, and, after a few minutes, decided that with nothing for comparison, we were unable to say which species it was. However, comparison was at hand. John spotted a little bundle of fluff near the water edge, not far from the adult, and, just at that moment, a Pied Wagtail, which had been foraging along the beach, landed near the bundle of fluff. Immediately the adult bird attacked the Wagtail which, we soon discovered, appeared the larger of the two-so, adult and chick of Little Ringed Plover!

We were encourage by the number of Sand Martins flying round, singing. They seem to be enjoying something of a comeback this year. Common Turns were also present.

Before we left the river bank we saw a Spider Hunting Wasp, climbing over the vegetation, looking for spiders to hunt.

Near the now disused pumping station left over from the Victorian Sewage works, we were surprised to find a large clump of Dittander Lepidium latifolium, more usually found around the edges of saltmarshes in southeast England, and here too was a colony of the herb, Good King Henry Chenopodium bonus-henricus.

Crossing the road into Kings Forest, we found a large plant of Tall Rocket Sisymbrium altissimum, a naturalized alien, frequent in Breckland, and, in this case, it would appear, an alternative food plant for a very late flying Orange Tip Female all the Jack by the Hedge having dried up long ago.

Another plant of Breckland came in for close scrutiny, namely Sickie Medick Medicago falcata alongside which was growing its' common hybrid with lucerne Medicago sativa, known as Medicago X varia. The flowers of the species are bright yellow, while those of the hybrid are every colour from yellowish white thought green and almost blue to mauve as indeed was the case with the plants we studied.

Going through the forest, other plants flowering beside the rides included Kidney Vetch Anthyllis vulneraria, Field Scabious Knautia arvensis, Viper's Bugloss Echium vulgare and Greater Knapweed

Centaurea scabiosa, all with a wealth of attendant insects, some of which appeared very strange beasts indeed, though we did recognize a number of moths, including the Bordered White Bupalus piniaria a pest of pine trees, which flies by day and looks superficially like a very small Speckled Wood butterfly which was also flying among the trees in the warm sunshine.

A very satisfactory excursion a pity though, that not many people enjoyed it!.

Alec Bull.

REMINISCING

From time to time I receive numerous enquiries from people who have found insects attached to various parts of their cars, usually on the blades of the windscreen wipers after their night-time journeys.

Most of the victims that have been brought to my notice during this Autumn have been both sexes of the November moth Epirrita dilutata males of the Winter moth, Operophtera brumata the females of which are wingless and are only found crawling up tree trunks where they were reared, and occasional Angleshades Philogopora meticulosa. This later specie is more often found on the windows of shops where they have been attracted by the illuminations at night.

I have often marvelled, especially when driving home at night in the rain, at the risk these night flying moths take. It seems that each rain drop pushes them out of its way as it falls, not so a car.

As a youth when cars were built with the open honeycomb type radiators, I used to enjoy wandering around the local car park examining these very convenient and productive insect traps, but now this source of interest has disappeared with modern design of vehicles and what would happen today if a budding Entomologist wandered around parked cars examining their radiators, it would not be long before the law intervene to apprehend the suspected vandal or car thief.

Another of my favourite hunting grounds were the gas lamps which illuminated the promenade in my school days, nearly every lamp had its mass of flying insects at night often accompanied by a few bats. Modern street lamps besides being much taller do not to me seem to attract such numbers, how times have changed.

Ken Durrant

Reminder to all photographer's now is the time to check your equipment, if you are not going to use it for the Winter, remove the batteries and store them in a container so if they corrode the equipment will not be damaged. But do put a note on the equipment that the batteries are removed so you do not take out a camera without battery, as some modern cameras are dead without a battery. Now is the time to clean out your camera bag but first have a good look for small screws ect. Which may have come off your equipment, then give the bag a good clean out, as the mechanisms of your camera can be jammed by the smallest grain of sand. Give your equipment a good clean, use a blow brush or a sable paint brush, as this can be cleaned with a gentle wash in warm water. Use lens tissue and lens cleaner only on the lens. Do not use cleaning cloth which are recommended for spectacles, as these are often impregnated with a greasy cleaning agent. If rubbed on the lens grease can give a star filter effect. The best way to protect the lens is to keep a filter on the lens a U.V or skylight. Use a stiffer brush for cleaning the camera body and metal work including the outside lens housing. It is important to keep grit away from the wind-on lever and small controls. If the shutter of your camera is mechanical type, without a film in the camera run through the shutter speeds and all the iris (exposures f 5.6 to f 22) periodically. Most faults with modern sophisticated cameras are operator malfunctions- people do not read their camera manuals properly.

Colin Beck

BEESTON COMMON

SUNDAY 13th JULY 1986

A perfect day for a nature ramble, we entered the common over an area which two years previous had been impenetrable aged gorse, but having been cleared is now an area of grass, rush and orchids. Meadow Brown butterflies were everywhere certainly in numbers not seen since the 1940's.

The pound is now managed as it was in prewar days, the results were rewarding, the flowering Rush was a delight to see, the flower spikes surrounded by water well away from the fingers of children who in past years had picked them before they could be admired. The *Mimulus* although of hybrid origin was in full flower along the streams and bog, Three-spined Sticklebacks also abounded in the streams and pound.

One patch of Dodder exists all that remains of the masses which used to cover the gorse before being destroyed by a vandallised fire last year.

Many acres of Bracken and burnt Gorse on the bog, have been cleared by volunteers, resulting in a vast increase of the plant life which in past years had been smothered.

An enjoyable day was had by all.

Lepidoptera seen

Meadow Brown
Ringlet
Gatekeeper
Small Heath
Large Skipper
Small Skipper
Drinker Moth
Garden Tiger
Hebrew Character
Brown Silver Lines
Heart and Dart
Silver Y
Large Yellow Underwing
Common Rustic
Middle Barred Minor
Five-spot Burnet
Common Footman
The Spinach
Small Magpie
White Plume Moth

Coleoptera

Strangalia maculata
Rhagonycha fulva
Hydrobius fuscipes

Heteroptera

Zicron caerulea
Vellia caprai
Napa cinerea
Gerris thoracicus

Diptera

Chloromyia formosa
Oxycera nigricornis
Beris clavipes
Chrysopilus cristatus
Syrirta pipiens
Xylota segnis
Rhagio scolopacea
Sciara thomae
Poecilobothrus nobilitatus
Dolichopus unguilatus
Dolichopus picipes

Odonata

Ischnura elegans

Hymenoptera

Abia sericea
Cladius difformis
Strongylogaster lineata

Ken Durrant.

BURNT FEN, HORNING

SUNDAY 19th OCTOBER 1986

About 24 members gathered on a sunny but windy Sunday for a Fungus Foray at Burnt Fen, Horning, by kind permission of Mrs Nickerson. Fungi found as follows:-

AGARICALES

Hypholoma fasciculare
Plutueus cervinus
Mycena galericulata
Russula ochroleuca
" cyanoxantha
" parazurea
" aeruginea
" nigricans
Amanita rubescens
" muscaria
Macrocyttidia cucumis
Lactarius mitissimus
" turpis
Coprinus micaceus
Boletus parasiticus *
Hygrophorus conicus
" nivea
Clitocybe nebularis
" flaccida
Tricholoma ustale
Cortinarius delibutus
Bolbitus vitellinus
Phaeomarasmius erinaceus
Panaeolus rickenii
Pholiota mutabilis
Tubaria furfuracea
Leccinum scabrum
Paxillus involutus

DISCOMYCETES

Rhytisma acerinum
Otidea onotica
Dasyscyphus virgineus
Hymenoscyphus scutula
" fructigenus

PYRENOMYCETES

Claviceps purpurea
Xylaria hypoxylon
Hypoxylon multifforme
Diatrypella quercina

TREMELLALES

Calocera viscosa
Hirneola auricula-judae
Dacrymyces stillatus
Exidia glandulosa
Tremella mesenterica

APHYLLOPHORALES

Clavulina cristata
Stereum gausapatum
Daedaleopsis confragosa
Piptoporus betulinus
Peniophora incarnata
Phaeolus schweinitzii
Phlebia radiata
Pseudotrametes gibbosa
Fistulina hepatica

GASTEROMYCETES

Phallus impudicus
Schleroderma citrinum

*This is only the second time this fungus has been found in Norfolk.

Mike Woolner.

CONTRIBUTIONS TO THE NEXT NATTERJACK should be sent to Colin Dack 12 Shipdham Road, Toftwood, Dereham, Norfolk. NR19 1JJ. Would contributors please keep reports of field meeting to about 300 words thank you editor Natterjack. Contributions for next natterjack by 15th January 1987 please.

If members have to write to me about membership or "Natterjack". Would they please put their full name above the address on the letter. Also would they please write the letter so I can read it, I do not have a degree in reading bad hand writing. Some letters sent to Don Locking the Treasurer and to myself we have not been able to understand. I think said "I have remarried and moved", we could not make out the name or address there was not an old name and address to go by. So please use your best Colin proof writing, the same for contributions to Natterjack. A telephone number would also be a great help if I had to contact you about your letter.

BOUND
28 SEP 1987

